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Roman army

The **Roman army** (Latin: *exercitus Romanorum*; Ancient Greek: στρατός/φροσῶτον Ῥωμαίων) is the generic term for the terrestrial armed forces deployed by the kingdom of Rome (to ca. 500 BC), the Roman Republic (500-31 BC), the Roman Empire (31 BC - AD 395/476) and its successor, the East Roman or Byzantine Empire (395-1453). It is thus a term that spans approximately 2,000 years, during which the Roman armed forces underwent numerous permutations in composition, organization, equipment and tactics, while conserving a core of lasting traditions.



Coin showing (obverse) head of the late Roman emperor Julian (ruled AD 361-3) wearing diadem and (reverse) soldier bearing standard holding kneeling barbarian captive by the hair and legend VIRTUS EXERCITUS ROMANORUM ("Valour of the Roman army"). Gold *solidus*. Sirmium mint.

Historical phases

The development of the Roman army may be divided into the following 8 broad historical phases:

Early Roman army (to ca 300 BCE)

(1) The **Early Roman army** of the Roman kingdom and of the early republic (to ca. 300 BC). During this period, when warfare chiefly consisted of small-scale plundering-raids, it has been suggested that the Roman army followed Etruscan or Greek models of organization and equipment. The early Roman army was based on an annual levy or conscription of citizens for a single campaigning-season, hence the term legion for the basic Roman military unit (derived from *legere*, "to levy").

Roman army of the mid-Republic (ca 300-107 BCE)

(2) The **Roman army of the mid-Republic** (a.k.a. as the "manipular army" or the "Polybian army" after the Greek historian Polybius, who provides the most detailed extant description of this phase) of the mid-Republican period (ca. 300-107 BC).

During this period, the Romans, while maintaining the levy system, adopted the Samnite manipular organization for their legions and also bound all the other peninsular Italian states into a permanent military alliance (see *Socii*). The latter were required to supply (collectively) roughly the same number of troops to joint forces as the Romans to serve under Roman command. Legions in this phase were always accompanied on campaign by the same number of allied *alae*, units of roughly the same size as legions.

After the 2nd Punic War (218-201 BC), the Romans acquired an overseas empire, which necessitated standing forces to fight lengthy wars of conquest and garrison the newly gained provinces. Thus the army's character mutated from a temporary force based entirely on short-term conscription to a standing army in which the conscripts were complemented by a large number of volunteers who were willing to serve for much longer than the legal 6-year limit. These volunteers were mainly from the poorest social class, who did not have plots to tend at home and were attracted by the modest military pay and the prospect of a share of war-booty. The minimum property requirement for service in the legions, which had been suspended during the 2nd Punic War, was effectively ignored from 201 BC onwards in order to recruit sufficient volunteers. Also during this period, the manipular structure was gradually phased out, and the much larger cohort became the main tactical unit. In addition, from the 2nd Punic War onwards, Roman armies were always accompanied by units of non-Italian mercenaries, Numidian light cavalry, Cretan archers, and Balearic slingers, who provided specialist functions that Roman armies had previously lacked.

Roman army of the Late Republic (107–30 BCE)

(3) The Roman army of the Late Republic (107–30 BC) marks the continued transition between the conscription-based citizen-levy of the mid-Republic and the mainly volunteer, professional standing forces of the imperial era. The main literary source for the army's organisation and tactics in this phase are the works of Julius Caesar, the most notable of a series of warlords who contested power in this period. As a result of the Social War (91–88 BC), all Italians were granted Roman citizenship, the old allied *alae* were abolished and their members integrated into the legions. Regular annual conscription remained in force and continued to provide the core of legionary recruitment, but an ever-increasing proportion of recruits were volunteers, who signed up for 16-year terms as opposed to the maximum 6 years for conscripts. The loss of *ala* cavalry reduced Roman/Italian cavalry by 75%, and legions became dependent on allied native horse for cavalry cover. This period saw the large-scale expansion of native forces employed to complement the legions, made up of *numeri* (units) recruited from tribes within Rome's overseas empire and neighbouring allied tribes. Large numbers of heavy infantry and cavalry were recruited in Spain, Gaul and Thrace, and archers in Thrace, Anatolia and Syria. However, these native units were not integrated with the legions, but retained their own traditional leadership, organisation, armour and weapons.

Imperial Roman army (30 BCE – 284 CE)

(4) The **Imperial Roman army** (30 BC – AD 284), when the Republican system of citizen-conscription was replaced by a standing professional army of mainly volunteers serving standard 20-year terms (plus 5 as reservists), as established by the first Roman emperor, Augustus (sole ruler 30 BC - AD 14). The legions, consisting almost entirely of heavy infantry, numbered 25 of ca. 5,000 men each (total 125,000) under Augustus, increasing to a peak of 33 of 5,500 (ca. 180,000 men) by AD 200 under Septimius Severus. Legions continued to recruit Roman citizens only i.e. mainly the inhabitants of Italy and Roman colonies until AD 212. Regular annual conscription of citizens was abandoned and only decreed in emergencies (e.g. during the Illyrian revolt AD 6–9). Legions were now flanked by the *auxilia*, a corps of regular troops recruited mainly from *peregrini*, imperial subjects who did not hold Roman citizenship (the great majority of the empire's inhabitants until 212, when all were granted citizenship). Auxiliaries, who served a minimum term of 25 years, were also mainly volunteers, but regular conscription of *peregrini* was employed for most of the 1st century AD. The *auxilia* consisted, under Augustus, of ca. 250 regiments of roughly *cohort* size i.e. ca. 500 men (125,000 men, or 50% of total army effectives). The number of regiments increased to ca. 400 under Severus, of which ca. 13% were double-strength (ca. 250,000 men, or 60% of total army). Auxilia contained heavy infantry equipped similarly to legionaries; and almost all the army's cavalry (both armoured and light), and archers and slingers.

Late Roman army (284–476 CE) continuing as East Roman army (476–641 CE)

(5) The **Late Roman army** (284–476 and its continuation, in the surviving eastern half of the empire, as the East Roman army to 641). In this phase, crystallised by the reforms of the emperor Diocletian (ruled 284–305), the Roman army returned to regular annual conscription of citizens, while admitting large numbers of non-citizen barbarian volunteers. However, soldiers remained 25-year professionals and did not return to the short-term levies of the Republic. The old dual organisation of legions and *auxilia* was abandoned, with citizens and non-citizens now serving in the same units. The old legions were broken up into cohort or even smaller sizes. At the same time, a substantial proportion of the army's effectives were stationed in the interior of the empire, in the form of *comitatus praesentales*, armies that escorted the emperors.

Middle Byzantine army (641–1081 CE)

(6) The **Middle Byzantine army** (641–1081), is the army of the Byzantine state in its classical form (i.e. after the permanent loss of its Near Eastern and North African territories to the Arab conquests after 641). This army was based on conscription of professional troops in the themes structure characteristic of this period, and from ca. 950 on the professional troops known as *tagmata*.

Komnenian Byzantine army (1081-1204 CE)

(7) The **Komnenian Byzantine army**, named after the Komnenos dynasty, which ruled in 1081–1185. This was an army built virtually from scratch after the permanent loss of Byzantium's traditional main recruiting ground of Anatolia to the Turks following the Battle of Manzikert in 1071, and the destruction of the last regiments of the old army in the wars against the Normans in the early 1080s. It survived until the fall of Constantinople to the Western crusaders in 1204. This army was characterised by a large number of mercenary regiments composed of troops of foreign origin such as the Varangian Guard, and the introduction of the *pronoia* system.

Palaiologan Byzantine army (1261-1453 CE)

(8) The **Palaiologan Byzantine army**, named after the Palaiologos dynasty (1261–1453), which ruled Byzantium between the recovery of Constantinople from the Crusaders and its fall to the Turks in 1453. Initially, it continued some practices inherited from the Komnenian era and retained a strong native element until the late 13th century. During the last century of its existence, however, the empire was little more than a city-state that hired foreign mercenary bands for its defence. Thus the Byzantine army finally lost any meaningful connection with the standing imperial Roman army.

This article contains the summaries of the detailed linked articles on the historical phases above, Readers seeking discussion of the Roman army by theme, rather than by chronological phase, should consult the following articles:

History

- Campaign history of the Roman military
- Structural history of the Roman military

Corps

- Praetorian Guard
- Roman legion
- Roman auxiliaries
- Roman cavalry

Strategy and tactics

- Defence-in-depth (Roman military)
- Roman infantry tactics
- **Equipment & other**
- Roman military equipment
- Roman military decorations and punishments

Some of the Roman army's many tactics are still used in modern day armies today.

Early Roman army (to ca. 300 BC)

Until ca. 550 BC, there was probably no "national" Roman army, but a series of clan-based war-bands which only coalesced into a united force in periods of serious external threat. Around 550 BC, during the period conventionally known as the rule of king Servius Tullius, it appears that a universal levy of eligible adult male citizens was instituted. This development apparently coincided with the introduction of heavy armour for most of the infantry. Although originally low in numbers the Roman infantry was extremely tactful and developed some of the most influential battle strategies to date.

The early Roman army was based on a compulsory levy from adult male citizens which was held at the start of each campaigning season, in those years that war was declared. There were probably no standing or professional forces. During the Regal Era (to ca. 500 BC), the standard levy was probably of 9,000 men, consisting of 6,000 heavily armed infantry (probably Greek-style hoplites), plus 2,400 light-armed infantry (*rorarii*, later called *velites*) and 600 light cavalry (*equites celeres*). When the kings were replaced by two annually elected *praetores* in ca. 500 BC, the standard levy remained of the same size, but was now divided equally between the Praetors, each commanding one legion of 4,500 men.

It is likely that the hoplite element was deployed in a Greek-style phalanx formation in large set-piece battles. However, these were relatively rare, with most fighting consisting of small-scale border-raids and skirmishing. In these, the Romans would fight in their basic tactical unit, the *centuria* of 100 men. In addition, separate clan-based forces remained in existence until ca. 450 BC at least, although they would operate under the Praetors' authority, at least nominally....

In 493 BC, shortly after the establishment of the Roman Republic, Rome concluded a perpetual treaty of military alliance (the *foedus Cassianum*), with the combined other Latin city-states. The treaty, probably motivated by the need for the Latins to deploy a united defence against incursions by neighbouring hill-tribes, provided for each party to provide an equal force for campaigns under unified command. It remained in force until 358 BC.

Roman army of the mid-Republic (ca. 300 – 107 BC)

The central feature of the Roman army of the mid-Republic, or the Polybian army, was the manipular organization of its battle-line. Instead of a single, large mass (the phalanx) as in the Early Roman army, the Romans now drew up in three lines consisting of small units (maniples) of 120 men, arrayed in chessboard fashion, giving much greater tactical strength and flexibility. This structure was probably introduced in ca. 300 BC during the Samnite Wars. Also probably dating from this period was the regular accompaniment of each legion by an non-citizen formation of roughly equal size, the *ala*, recruited from Rome's Italian allies, or *socii*. The latter were ca. 150 autonomous states which were bound by a treaty of perpetual military alliance with Rome. Their sole obligation was to supply to the Roman army, on demand, a number of fully equipped troops up to a specified maximum each year.

The Second Punic War (218–201 BC) saw the addition of a third element to the existing dual Roman/Italian structure: non-Italian mercenaries with specialist skills lacking in the legions and *alae*: Numidian light cavalry, Cretan archers, and slingers from the Balearic islands. From this time, these units always accompanied Roman armies.

The Republican army of this period, like its earlier forebear, did not maintain standing or professional military forces, but levied them, by compulsory conscription, as required for each campaigning season and disbanded thereafter (although formations could be kept in being over winter during major wars). The standard levy was doubled during the Samnite Wars to 4 legions (2 per Consul), for a total of ca. 18,000 Roman troops and 4 allied *alae* of similar size. Service in the legions was limited to property-owning Roman citizens, normally those known as *iuniores* (age 16–46). The army's senior officers, including its commanders-in-chief, the Roman Consuls, were all elected annually at the People's Assembly. Only *equites* (members of the Roman knightly order) were eligible to serve as senior officers. *Iuniores* of the highest social classes (*equites* and the First Class of commoners) provided

the legion's cavalry, the other classes the legionary infantry. The *proletarii* (those assessed at under 400 *drachmae* wealth) were ineligible for legionary service and were assigned to the fleets as oarsmen. Elders, vagrants, freedmen, slaves and convicts were excluded from the military levy, save in emergencies.

The legionary cavalry also changed, probably around 300 BC onwards from the light, unarmoured horse of the early army to a heavy force with metal armour (bronze cuirasses and, later, chain-mail shirts). Contrary to a long-held view, the cavalry of the mid-Republic was a highly effective force that generally prevailed against strong enemy cavalry forces (both Gallic and Greek) until it was decisively beaten by the Carthaginian general Hannibal's horsemen during the second Punic War. This was due to Hannibal's greater operational flexibility owing to his Numidian light cavalry.

The Polybian army's operations during its existence can be divided into 3 broad phases. (1) The struggle for hegemony over Italy, especially against the Samnite League (338–264 BC); (2) the struggle with Carthage for hegemony in the western Mediterranean Sea (264–201 BC); and the struggle against the Hellenistic monarchies for control of the eastern Mediterranean (201–91 BC). During the earlier phase, the normal size of the levy (including allies) was in the region of 40,000 men (2 consular armies of ca. 20,000 men each).

During the latter phase, with lengthy wars of conquest followed by permanent military occupation of overseas provinces, the character of the army necessarily changed from a temporary force based entirely on short-term conscription to a standing army in which the conscripts, whose service was in this period limited by law to 6 consecutive years, were complemented by large numbers of volunteers who were willing to serve for much longer periods. Many of the volunteers were drawn from the poorest social class, which until the 2nd Punic War had been excluded from service in the legions by the minimum property requirement: during that war, extreme manpower needs had forced the army to ignore the requirement, and this practice continued thereafter. Maniples were gradually phased out as the main tactical unit, and replaced by the larger cohorts used in the allied *alae*, a process probably complete by the time the general Marius assumed command in 107 BC. (The so-called "Marian reforms" of the army hypothesised by outdated scholars are today seen as having evolved earlier and more gradually.)

In the period after the defeat of Carthage in 201 BC, the army was campaigning exclusively outside Italy, resulting in its men being away from their home plots of land for many years at a stretch. They were assuaged by the large amounts of booty that they shared after victories in the rich eastern theatre. But in Italy, the ever-increasing concentration of public lands in the hands of big landowners, and the consequent displacement of the soldiers' families, led to great unrest and demands for land redistribution. This was successfully achieved, but resulted in the disaffection of Rome's Italian allies, who as non-citizens were excluded from the redistribution. This led to the mass revolt of the *socii* and the Social War (91–88 BC). The result was the grant of Roman citizenship to all Italians and the end of the Polybian army's dual structure: the *alae* were abolished and the *socii* recruited into the legions.

Imperial Roman army (30 BC – AD 284)

Under the founder–emperor Augustus (ruled 30 BC – 14 AD), the legions, ca. 5,000-strong all- heavy infantry formations recruited from Roman citizens only, were transformed from a mixed conscript and volunteer corps serving an average of 10 years, to all-volunteer units of long-term professionals serving a standard 25-year term (conscriptio was only decreed in emergencies). In the later 1st century, the size of a legion's First Cohort was doubled, increasing legionary personnel to ca. 5,500.

Alongside the legions, Augustus established the *auxilia*, a regular corps of similar numbers to the legions, recruited from the *peregrini* (non-citizen inhabitants of the empire - about 90% of the empire's population in the 1st century). As well as comprising large numbers of extra heavy infantry equipped in a similar manner to legionaries, the *auxilia* provided virtually all the army's cavalry (heavy and light), light infantry, archers and other specialists. The *auxilia* were organised in ca. 500-strong units called *cohortes* (all-infantry), *alae* (all-cavalry) and *cohortes equitatae* (infantry with a cavalry contingent attached). Around AD 80, a minority of auxiliary regiments were doubled in size. Until about 68 AD, the *auxilia* were recruited by a mix of conscription and voluntary enlistment. After that time, the *auxilia* became largely a volunteer corps, with conscription resorted to only in emergencies. Auxiliaries were required to serve a minimum of 25 years, although many served for longer periods. On completion of their minimum term, auxiliaries were awarded Roman citizenship, which carried important legal, fiscal and social advantages. Alongside the regular forces, the army of the Principate employed allied native units (called *numeri*) from outside the empire on a mercenary basis. These were led by their own aristocrats and equipped in traditional fashion. Numbers fluctuated according to circumstances and are largely unknown.

As all-citizen formations, and symbolic guarantors of the dominance of the Italian "master-nation", legions enjoyed greater social prestige than the *auxilia*. This was reflected in better pay and benefits. In addition, legionaries were equipped with more expensive and protective armour than auxiliaries, notably the *lorica segmentata*, or laminated-strip armour. However, in 212, the emperor Caracalla granted Roman citizenship to all the empire's inhabitants. At this point, the distinction between legions and *auxilia* became moot, the latter becoming all-citizen units also. The change was reflected in the disappearance, during the 3rd century, of legionaries' special equipment, and the progressive break-up of legions into cohort-sized units like the *auxilia*.

By the end of Augustus' reign, the imperial army numbered some 250,000 men, equally split between legionaries and auxiliaries (25 legions and ca. 250 auxiliary regiments). The numbers grew to a peak of about 450,000 by 211 (33 legions and ca. 400 auxiliary regiments). By then, auxiliaries outnumbered legionaries substantially. From the peak, numbers probably underwent a steep decline by 270 due to plague and losses during multiple major barbarian invasions. Numbers were restored to their early 2nd-century level of ca. 400,000 (but probably not to their 211 peak)



Roman soldier wearing plate armour, National Military Museum, Romania.



Typical Roman Legionary

under Diocletian (r. 284-305). After the empire's borders became settled (on the Rhine-Danube line in Europe) by 68, virtually all military units (except the Praetorian Guard) were stationed on or near the borders, in roughly 17 of the 42 provinces of the empire in the reign of Hadrian (r. 117-38).

The military chain of command was relatively flat. In each province, the deployed legions' *legati* (legion commanders, who also controlled the auxiliary regiments attached to their legion) reported to the *legatus Augusti pro praetore* (provincial governor), who also headed the civil administration. The governor in turn reported direct to the emperor in Rome. There was no army general staff in Rome, but the leading *praefectus praetorio* (commander of the Praetorian Guard) often acted as the emperor's *de facto* military chief-of-staff.

Legionary rankers were relatively well-paid, compared to contemporary common labourers. Compared with their subsistence-level peasant families, they enjoyed considerable disposable income, enhanced by periodical cash bonuses on special occasions such as the accession of a new emperor. In addition, on completion of their term of service, they were given a generous discharge bonus equivalent to 13 years' salary. Auxiliaries were paid much less in the early 1st century, but by AD 100, the differential had virtually disappeared. Similarly, in the earlier period, auxiliaries appear not to have received cash and discharge bonuses, but probably did so from Hadrian onwards. Junior officers (*principales*), the equivalent of NCO's in modern armies, could expect to earn up to twice basic pay. Legionary centurions, the equivalent of mid-level commissioned officers, were organised in an elaborate hierarchy. Usually risen from the ranks, they commanded the legion's tactical sub-units of *centuriae* (ca. 80 men) and cohorts (ca. 480 men). They were paid several multiples of basic pay. The most senior centurion, the *primus pilus*, was elevated to equestrian rank on completion of his single-year term of office. The senior officers of the army, the *legati legionis* (legion commanders), *tribuni militum* (legion staff officers) and the *praefecti* (commanders of auxiliary regiments) were all of at least equestrian rank. In the 1st and early 2nd centuries, they were mainly Italian aristocrats performing the military component of their *cursus honorum* (conventional career-path). Later, provincial career officers became predominant. Senior officers were paid enormous salaries, multiples of at least 50 times basic.

A simple breakdown of the Roman army around this period is one army was made up of 5 to 6 legions. One legion was made up of usually 5 to 6 cohorts. The first cohort had 5 centuria each of 160 soldiers. In the second through sixth cohorts there were 6 centuria of 80 men each. These do not include Archers, Cavalry or Officers.

Soldiers spent only a fraction of their lives on campaign. Most of their time was spent on routine military duties such as training, patrolling, and maintenance of equipment etc. Soldiers also played an important role outside the military sphere. They performed the function of a provincial governor's police force. As a large, disciplined and skilled force of fit men, they played a crucial role in the construction of a province's Roman military and civil infrastructure: in addition to constructing forts and fortified defences such as Hadrian's Wall, they built roads, bridges, ports, public buildings, entire new cities (Roman colonies) and also engaged in large-scale forest clearance and marsh drainage to expand the province's available arable land.

Soldiers, mostly drawn from polytheistic societies, enjoyed wide freedom of worship in the polytheistic Roman system. They revered both their own native deities, Roman deities and the local deities of the provinces in which they served. Only a few religions were banned by the Roman authorities, as being incompatible with the official Roman religion and/or politically subversive, notably Druidism and Christianity. The later Principate saw the rise in popularity among the military of Eastern mystery cults, generally centred on one deity, and involving secret rituals divulged only to initiates. By far the most popular in the army was Mithraism, an apparently syncretist religion which mainly originated in Asia Minor.

Late Roman army/East Roman army (284–641)

The Late Roman army is the term used to denote the military forces of the Roman Empire from the accession of Emperor Diocletian in 284 until the Empire's definitive division into Eastern and Western halves in 395. A few decades afterwards, the Western army disintegrated as the Western empire collapsed. The East Roman army, on the other hand, continued intact and essentially unchanged until its reorganization by themes and transformation into the Byzantine army in the 7th century. The term "late Roman army" is often used to include the East Roman army.

The army of the Principate underwent a significant transformation as a result of the chaotic 3rd century. Unlike the Principate army, the army of the 4th century was heavily dependent on conscription and its soldiers were more poorly remunerated than in the 2nd century. Barbarians from outside the empire probably supplied a much larger proportion of the late army's recruits than in the army of the 1st and 2nd centuries.

The size of the 4th century army is controversial. More dated scholars (e.g. A.H.M. Jones, writing in the 1960s) estimated the late army as much larger than the Principate army, half the size again or even as much as twice the size. With the benefit of archaeological discoveries of recent decades, many contemporary historians view the late army as no larger than its predecessor: under Diocletian ca. 390,000 (the same as under Hadrian almost 2 centuries earlier) and under Constantine no greater, and probably somewhat smaller, than the Principate peak of ca. 440,000. The main change in structure was the establishment of large armies that accompanied the emperors (*comitatus praesentales*) and were generally based away from the frontiers. Their primary function was to deter usurpations. The legions were split up into smaller units comparable in size to the auxiliary regiments of the Principate. In parallel, legionary armour and equipment were abandoned in favour of auxiliary equipment. Infantry adopted the more protective equipment of the Principate cavalry.

The role of cavalry in the late army does not appear to have been enhanced as compared with the army of the Principate. The evidence is that cavalry was much the same proportion of overall army numbers as in the 2nd century and that its tactical role and prestige remained similar. Indeed, the cavalry acquired a reputation for incompetence and cowardice for their role in three major battles in mid-4th century. In contrast, the infantry retained its traditional reputation for excellence.

The 3rd and 4th centuries saw the upgrading of many existing border forts to make them more defensible, as well as the construction of new forts with much higher defensive specifications. The interpretation of this trend has fuelled an ongoing debate whether the army adopted a defence-in-depth strategy or continued the same posture of "forward defence" as in the early Principate. Many elements of the late army's defence posture were similar to those associated with forward defence, such as a loser forward location of forts, frequent cross-border operations, and external buffer-zones of allied barbarian tribes. Whatever the defence strategy, it was apparently less successful in preventing barbarian incursions than in the 1st and 2nd centuries. This may have been due to heavier barbarian pressure, and/or to the practice of keeping large armies of the best troops in the interior, depriving the border forces of sufficient support.

Komnenian Byzantine army (1081–1204)



Emperor John II Komnenos, the most successful commander of the Komnenian army.

The Komnenian period marked a rebirth of the Byzantine army. At the beginning of the Komnenian period in 1081, the Byzantine Empire had been reduced to the smallest territorial extent. Surrounded by enemies, and financially ruined by a long period of civil war, the empire's prospects looked grim.

At the beginning of the Komnenian period, the Byzantine army was reduced to a shadow of its former self: during the 11th century, decades of peace and neglect had reduced the old thematic forces, and the Battle of Manzikert in 1071 had destroyed the professional *tagmata*, the core of the Byzantine army. At Manzikert and later at Dyrrhachium, units tracing their lineage for centuries back to Late Roman army were wiped out, and the subsequent loss of Asia Minor deprived the Empire of its main recruiting ground. In the Balkans, at the same time, the Empire was exposed to invasions by the Norman Kingdom of Sicily, and by Pecheneg raids across the Danube.

The Byzantine army's nadir was reached in 1091, when Alexios I could manage to field only 500 soldiers from the Empire's professional forces. These formed the nucleus of the army, with the addition of the armed retainers of Alexios' relatives and the nobles enrolled in the army and the substantial aid of a large force

of allied Cumans, which won the Battle of Levounion against the Pechenegs (Petcheneks or Patzinaks).^[1] Yet, through a combination of skill, determination and years of campaigning, Alexios, John and Manuel Komnenos managed to restore the power of the Byzantine Empire by constructing a new army from scratch. This process should not, however, at least in its earlier phases, be seen as a planned exercise in military restructuring. In particular, Alexios I was often reduced to reacting to events rather than controlling them; the changes he made to the Byzantine army were largely done out of immediate necessity and were pragmatic in nature.

The new force had a core of units which were both professional and disciplined. It contained formidable guards units such as the Varangians, the *Athanatoi*, a unit of heavy cavalry stationed in Constantinople, the *Vardariotai* and the *Archontopouloi*, recruited by Alexios from the sons of dead Byzantine officers, foreign mercenary regiments, and also units of professional soldiers recruited from the provinces. These provincial troops included *kataphraktoi* cavalry from Macedonia, Thessaly and Thrace, and various other provincial forces such as Trebizond Archers from the Black Sea coast of Anatolia. Alongside troops raised and paid for directly by the state the Komnenian army included the armed followers of members of the wider imperial family and its extensive connections. In this can be seen the beginnings of the feudalisation of the Byzantine military. The granting of *pronoia* holdings, where land, or more accurately rights to revenue from land, was held in return for military obligations, was beginning to become a notable element in the military infrastructure towards the end of the Komnenian period, though it became much more important subsequently.

In 1097, the Byzantine army numbered around 70,000 men altogether.^[2] By 1180 and the death of Manuel Komnenos, whose frequent campaigns had been on a grand scale, the army was probably considerably larger. During the reign of Alexios I, the field army numbered around 20,000 men which was increased to about 30,000 men in John II's reign.^[3] By the end of Manuel I's reign the Byzantine field army had risen to 40,000 men.

Palaiologan Byzantine army (1261–1453)

The Palaiologan army refers to the military forces of the Byzantine Empire from the late 13th century to its final collapse in the mid 15th century, under the House of the Palaiologoi. The army was a direct continuation of the forces of the Nicaean army, which itself was a fractured component of the formidable Komnenian army. Under the first Palaiologan emperor, Michael VIII, the army's role took an increasingly offensive role whilst the naval forces of the Empire, weakened since the days of Andronikos I Komnenos, were boosted to include thousands of skilled sailors and some 80 ships. Due to the lack of land to support the army, the Empire required the use of large numbers of mercenaries.

After Andronikos II took to the throne, the army fell apart and the Byzantines suffered regular defeats at the hands of their eastern opponents, although they would continue to enjoy success against the crusader territories in Greece. By c. 1350, following a destructive civil war and the outbreak of the Black Death, the Empire was no longer capable of raising troops and the supplies to maintain them. The Empire came to rely upon troops provided by Serbs, Bulgarians, Venetians, Latins, Genoans and Ottoman Turks to fight the civil wars that lasted for the greater part of the 14th century, with the latter foe being the most successful in establishing a foothold in Thrace. The Ottomans swiftly expanded through the Balkans and cut off Constantinople, the capital of the Byzantine Empire, from the surrounding land. The last decisive battle was fought by the Palaiologan army in 1453, when Constantinople was besieged and fell on 29 May. The last isolated remnants of the Byzantine state were conquered by 1461.

Citations

[1] Angold, p. 127

[2] Konstam, p. 141.

[3] W. Treadgold, *A History of the Byzantine State and Society*, 680

Early Roman army

The **Early Roman army** refers to the army deployed by ancient Rome during its Regal Era and its early Republic, until ca. 300 BC, when the so-called "Polybian" or manipular legion was introduced.

Until ca. 550 BC, there was probably no "national" Roman army, but a series of clan-based war-bands which only coalesced into a united force in periods of serious external threat. Around 550 BC, during the period conventionally known as the rule of king Servius Tullius, it appears that a universal levy of eligible adult male citizens was instituted. This development apparently coincided with the introduction of heavy armour for most of the infantry.

The early Roman army was based on a compulsory levy from adult male citizens which was held at the start of each campaigning season, in those years that war was declared. There were probably no standing or professional forces. During the Regal Era (to ca. 500 BC), the standard levy was probably of 9,000 men, consisting of 6,000 heavily-armed infantry (probably Greek-style hoplites), plus 2,400 light-armed infantry (*rorarii*, later called *velites*) and 600 light cavalry (*equites celeres*). When the kings were replaced by two annually-elected *praetores* in ca. 500 BC, the standard levy remained of the same size, but was now divided equally between the Praetors, each commanding one legion of 4,500 men.

It is likely that the hoplite element was deployed in a Greek-style phalanx formation in large set-piece battles. However, these were relatively rare, with most fighting consisting of small-scale border-raids and skirmishing. In these, the Romans would fight in their basic tactical unit, the *centuria* of 100 men. In addition, clan-based forces remained in existence until ca. 450 BC at least, although they would operate under the Praetors' authority, at least nominally.

In 493 BC, shortly after the establishment of the Roman Republic, Rome concluded a perpetual treaty of military alliance (the *foedus Cassianum*), with the combined other Latin city-states. The treaty, probably motivated by the

need for the Latins to deploy a united defence against incursions by neighbouring hill-tribes, provided for each party to provide an equal force for campaigns under unified command. It remained in force until 358 BC.

Background: early Rome (to 338 BC)

Socio-political developments

According to Roman legend, Rome was founded by Romulus in 753 BC. However, the vast amount of archaeological evidence uncovered since the 1970s suggests that Rome did not assume the characteristics of a united city-state (as opposed to a group of separate hilltop settlements) before around 625 BC. The same evidence, however, has also conclusively discredited A. Alföldi's once-fashionable theory that Rome was an insignificant settlement until ca. 500 BC (and that, consequently, the Republic was not established before ca. 450 BC). There is now no doubt that Rome was a major city in the period 625-500 BC, when it had an area of ca. 285 hectares and an estimated population of 35,000. This made it the second-largest in Italy (after Tarentum) and about half the size of contemporary Athens (585 hectares, inc. Piraeus).^[1]

Few scholars today dispute that Rome was ruled by kings in its archaic period, although whether any of the 7 names of kings preserved by tradition are historical remains uncertain (Romulus himself is generally regarded as mythical). It is also likely that there were several more kings than those preserved by tradition, given the long duration of the regal era (even if it did start in 625 rather than 753 BC).^[2] The Roman monarchy, although an autocracy, did not resemble a medieval monarchy. It was not hereditary and based on "divine right", but elective and subject to the ultimate sovereignty of the people. The king (*rex*, from root-verb *regere*, literally means simply "ruler") was elected for life by the people's assembly (the *comitia curiata* originally) although there is strong evidence that the process was in practice controlled by the patricians, a hereditary aristocratic caste.^[3] Most kings were non-Romans brought in from abroad, doubtless as a neutral figure who could be seen as above patrician factions (somewhat like the *podestà* in medieval Italian cities). Although a king's blood-relations could succeed him, they were still required to submit to election.^[4] The position and powers of a Roman king were thus similar to those of Julius Caesar when he was appointed dictator-for-life in 44 BC and indeed of the succeeding Roman emperors.

According to Roman tradition, in 616 BC, an Etruscan named Lucumo from the town of Tarquinii, was elected king of Rome as Lucius Tarquinius I. He was succeeded by his son-in-law, Servius Tullius, and then by his son, Lucius Tarquinius II. The establishment of this "dynasty" of Etruscan origin has led some dated historians to claim that late regal Rome was occupied by troops from Tarquinii militarily and culturally Etruscanised. But this theory has been dismissed as a myth by Cornell and other more modern historians, who point to the extensive evidence that Rome remained politically independent, as well as linguistically and culturally a Latin city.^[5] In relation to the army, the Cornell faction argue that the introduction of heavy infantry in the late regal era followed Greek, not Etruscan, models.

It seems certain that the monarchy was overthrown in ca. 500 BC and replaced by some form of collegiate rule.^[6] It is likely that the revolution that overthrew the Roman monarchy was engineered by the patrician caste and that its aim was not, as rationalised later by ancient authors, the establishment of a democracy, but of a patrician-dominated oligarchy. The proverbial "arrogance" and "tyranny" of the Tarquins, epitomised by the rape of Lucretia incident, is probably a reflection of the patricians' fear of the Tarquins' growing power and their erosion of patrician privilege, most likely by drawing support from the plebeians (commoners). To ensure patrician supremacy, the autocratic power of the kings had to be fragmented and permanently curtailed. Thus the replacement of a single ruler by a collegiate administration, which soon evolved into two *praetores* (Praetors, renamed Consuls in 305 BC), with equal powers and limited terms of office (one year, instead of the life tenancy of the kings). In addition, power was further fragmented by the establishment of further collegiate offices, known to history as Roman magistrates: 3 Aediles and 4 Quaestors. Patrician supremacy was assured by restricting eligibility to hold the Republican offices to patricians only.

The establishment of a hereditary oligarchy obviously excluded wealthy non-patricians from political power and it is this class that led plebeian opposition to the early Republican settlement. The early Republic (510-338 BC) saw a long and often bitter struggle for political equality, known as the Conflict of the Orders, against the patrician monopoly of power. The plebeian leadership had the advantage that they represented the vast majority of the population and of their own growing wealth. By 338 BC, the privileges of the patricians had become largely ceremonial (such as the exclusive right to hold certain state priesthoods). But this does not imply a more democratic form of government. The wealthy plebeians who had led the "plebeian revolution" had no more intention of sharing real power with their poorer and far more numerous fellow-plebeians than did the patricians. It was probably at this time (around 300 BC) that the population was divided, for the purposes of taxation and military service, into 7 classes based on an assessment of their property. The two top classes, numerically the smallest, accorded themselves an absolute majority of the votes in the main electoral and legislative assembly. Oligarchy based on birth had been replaced by oligarchy based on wealth.

External relations

It appears likely that Rome in the period 550-500, conventionally known as the period it was ruled by the Tarquin dynasty, established its hegemony over the other Latin city-states of Old Latium, which may have been required to pay tribute.^[7] The fall of the Roman monarchy was followed by a war with the Latins, who probably took advantage of the political turmoil in Rome to attempt to regain their independence. The Romans apparently prevailed, scoring a notable victory over the Latin forces at Lake Regillus sometime between 499 and 493 BC.

But instead of restoring their previous hegemony, the Romans settled for a military alliance on apparently equal terms with the Latins. According to the sources, the *foedus Cassianum* was a bilateral treaty between the Romans and the Latin city-states.^[8] The impetus to form such an alliance was probably provided by the acute insecurity caused by a phase of migration and invasion of the lowland areas by Italic tribes occupying the mountains surrounding Old Latium, notably the Aequi and Volsci, in the period after 500 BC.^[9]

The new Romano-Latin military alliance proved strong enough to repel the incursions of the Italic mountain tribes, but it was a very tough struggle. Intermittent wars, with mixed fortunes, continued until ca. 395 BC. The Sabines disappear from the record in 449 BC (presumably subjugated by the Romans), while campaigns against the Aequi and Volsci seem to have reached a turning point with the major Roman victory on Mount Algidus in 431 BC.^[10] In the same period, the Romans fought 3 wars against their nearest neighbouring Etruscan city-state, Veii, finally reducing the city in 396 BC, probably increasing the *ager Romanus* (Roman territory) by ca. 65%.^[11]

At this juncture, Rome was crushed by an invasion of central Italy by the Senones Gallic tribe. Routed in the Battle of the river Allia in 386 BC, the Roman army fled to Veii, leaving their City at the mercy of the Gauls, who proceeded to ransack it and then demand a huge ransom in gold to leave. The effects of this disaster on Roman power are a matter of controversy between scholars. The ancient authors emphasize the catastrophic nature of the damage, claiming that it took a long time for Rome to recover.^[12] Cornell, however, argues that the ancients greatly exaggerated the effects and cites the lack of archaeological evidence for major destruction and the building of the so-called "Servian" Wall as evidence that Rome recovered swiftly. The Wall, whose 11km-circuit enclosed 427 hectares (an increase of 50% over the Tarquinian city) was a massive project which would have required an



Gate of the so-called "Servian Wall", Caelian Hill, Rome. The wall, made of massive tufa stone blocks, was built shortly after Rome was sacked by the Gauls in 390 BC. Several sections survive to this day

estimated 5 million man-hours to complete, implying plentiful financial and labour resources.^[13] Against this, Eckstein argues that the history of Rome in the 50 years subsequent to 386 BC appears a virtual replay of the previous century. There were wars against the same enemies except Veii (i.e. the Volsci, Aequi and Etruscans) in the same geographical area, and indeed against other Latin city-states such as Praeneste and Tibur, just 30 miles away. In addition, a treaty concluded with Carthage in ca. 348 BC seems to describe Rome's sphere of control as much the same area as in a previous treaty signed in the first years of the Republic 150 years earlier: just Old Latium, and not even all of that.^[14]

This phase of Roman history ended with the Latin War (341-338 BC). The Latin city-states, acting collectively as the Latin League, tried to withdraw from their military alliance with Rome, for fear of the latter's ever-growing political dominance. But the Romans scored a decisive victory and the Latin city-states were either annexed into Roman territory or tied into satellite-status.

Army evolution

The early Roman army is shrouded by lack of evidence. Ancient historians' accounts of the history of Rome before it was destroyed by the Gauls in 386 BC (390 by Roman reckoning) are regarded as highly unreliable by modern historians. Livy, the main surviving ancient source on the early period, himself admits that the pre-386 period is very obscure and that his own account is based on legend rather than written documentation, as the few written documents that did exist in the earlier period were mostly lost in the Gallic fire.^[15]

Early regal era (to ca. 550 BC)

In the earliest times, when Rome still consisted of separate hilltop settlements, and into the earlier regal period until ca. 550 BC, it is likely that there was no "Roman army" in the conventional sense, but war-bands based on the Roman *gentes* (clans), led by their clan-leaders e.g. the war-band of the Fabii, which, according to Livy numbered 306 *cognati et sodales* ("kinsmen and supporters") in 479 BC.^[16] In this era, the predominant "warfare" consisted of chronic small-scale raiding and cattle-rustling against other clans and, later, neighbouring hill-tribes such as the Sabini and Aequi.^[17] Only occasionally did the clan war-bands join together to form a larger force, in order to face a major threat from neighbouring tribes. It is likely that the heroic tales in Livy's first 3 books derive from old ballads celebrating such raids, orally transmitted through the generations within aristocratic clans.^{[18][19]} At this time, it is likely that Roman warriors, both foot and mounted, were unarmoured, carrying only light shields and leather helmets.

Later regal era (ca. 550-500 BC)

It appears that the "Early Roman army" in the sense of an organised national force with standard equipment did not become established before the period 600-500 BC, when both the ancient chroniclers and archaeology indicate major changes in organisation and equipment.^[20]

Infantry

The critical changes were the adoption by the infantry of Greek-style hoplite equipment, most likely borrowed from the Greek colonies of southern Italy (Magna Graecia), featuring metal body-armour; and the concomitant differentiation of the section of the citizen-body who were wealthy enough to pay for such equipment (known as the *classis*, or "class") from those who were not and continued to serve as unarmoured light infantry (*infra classem*, or "beneath the class").^[21]

According to Livy, Romulus (traditional reign dates: 753-717 BC) raised 10 *centuriae* (military units of 100 men) of infantry from each of the 3 original "tribes" of Rome which he had founded - the *Ramnes*, *Tities* and *Luceres*.^[22] (Although the Latin term *tribus* - literally "in three parts" - is conventionally translated as "tribe", the term "constituency" would be more precise, as they were artificial divisions for administrative purposes. The Romans

always used the terms *gentes* or *nationes* to mean "tribes" in the sense of ethnic groups). But the establishment of these *centuriae* (and even of the tribes themselves) is probably anachronistic, and in reality dates from much later in the regal era, probably in the period 600-550 BC.

The initial 30 *centuriae* were then doubled to 60 in the period around 550 BC, according to the scholar P. Fraccaro's interpretation of the so-called Servian centuriate organisation.^{[23][24]} Fraccaro suggests that the Servian army consisted of a single legion of 6,000 hoplites, plus 2,400 *velites* (unarmoured infantry) and 600 cavalry.^[25] Until recently, Fraccaro's thesis was not widely accepted because of Alföldi's view of an "insignificant" early Rome, which could not have supported such a powerful army (or cavalry).^[26] But with a population now estimated at 35,000 inhabitants, a regal military levy of 9,000 is plausible, and the Fraccaro interpretation has won wide acceptance among modern scholars of ancient Rome.^[27] It implies that the "Servian" citizen-body was divided into just 3 property-classes for military service: patricians for cavalry service, landowning peasants for service (collectively known as the *classis*) as hoplites and others for service as *velites* (*infra classem*, or "beneath the class").^{[28][29]}

Cavalry

Romulus supposedly established a cavalry regiment of 300 men called the *Celeres* ("the Swift Squadron") to act as his personal escort, with each of the three tribes supplying 100 horse. This cavalry regiment was supposedly doubled in size to 600 men by King Tarquinius Priscus (conventional dates 616-578 BC).^[30] That the cavalry was increased to 600 during the regal era is likely, as in the early Republic the cavalry fielded remained 600-strong (2 legions with 300 horse each).^[31] However, according to Livy, king Servius Tullius established a further 12 *centuriae* of *equites*, a further tripling of the cavalry.^[32] But this is probably anachronistic, as it would have resulted in a contingent of 1,800 horse, incongruously large since the heavy infantry was only 6,000-strong. Instead, the additional 12 *centuriae* were probably created at a later stage, perhaps around 400 BC, but these new units were political not military, most likely designed to admit plebeians to the Order of Knights.^[33]

An important question is whether the royal cavalry was drawn exclusively from the ranks of the patricians. This is certainly the mainstream view among historians, starting with Mommsen, but Cornell considers the supporting evidence tenuous.^[34] If the cavalry was indeed a patrician preserve in the regal era, it probably played a critical part in the coup against the monarchy. Indeed, Alföldi suggests that the coup was carried out by the *Celeres* themselves.^[35]

Early Republic (500 - ca. 300 BC)

According to the Fraccaro hypothesis, when the Roman monarchy was replaced by two *praetores* in ca. 500 BC, the royal legion was divided into two (one for each *praetor*), each legion comprising 3,000 hoplites. The *velites* and cavalry were also split equally (1,200 *velites* and 300 cavalry each), for a total of 4,500 men.^[36] This remained the normal size of a Republican legion until the end of the Social War (88 BC). However, Livy states that a legion at the time of Marcus Furius Camillus (early 4th century BC) consisted of only 3,000 infantry and 300 cavalry.^[37]

Around 400 BC, according to Livy, important reforms were made. Pay was introduced for levies under arms, both infantry and cavalry (at 1/3 and one *drachma* per day respectively). Although modest, infantry pay was at least sufficient to cover food rations, clothing and miscellaneous equipment (other than weapons and armor), which until then had been borne by the soldier.^[38]

A seminal innovation of the young Republic was the establishment, in ca. 493 BC, of an indefinite military alliance with the other city-states of Old Latium, the home of the Latin tribe, to which the Romans themselves belonged. The so-called *foedus Cassianum* ("Treaty of Cassius") was a mutual non-aggression and defense pact. It required all signatories to assist any of their number who was attacked with all their forces. It also appears to have provided for joint operations in the field. Judging by the provision that the Romans and Latins were to share booty on an equal basis, it is likely that the treaty required the Latins to contribute roughly the same number of troops to joint operations as Rome. It appears that allied strategy was determined by an annual conference and that command of any

joint forces may have alternated between Romans and allies.^[39] The treaty remained in force until 358 BC and effectively doubled Rome's military potential to ca. 18,000 troops, a huge size for Italian armies of the time.

Transformation into manipular Roman army (ca. 300 - 264 BC)

Scholars generally believe that the transformation of the early army into the "manipular" army of the mid-Republic took place during the Samnite Wars (which ended in 290 BC).

From this time onwards, instead of fielding a phalanx for battle, the Romans deployed a series of small tactical units called *manipuli* (maniples), arrayed in three lines (*triplex acies*) in a chessboard pattern (*quincunx*). The maniples were basically the old *centuriae*, reconfigured so that those deployed in the front two lines of *triplex acies* were 20 men larger (120 men) and those in the rear line were reduced to 60 men each. The *quincunx* offered much greater flexibility and maneuverability than the large, dense mass of a phalanx. It is believed that the Romans copied the *quincunx* from their adversaries, the Samnites.

Other major changes occurred around this time. The demands of the struggle with the Samnites led to the doubling of the normal Roman military levy, from 2 to 4 legions. In addition, the defunct alliance (*foedus Cassianum*) with the other Latin cities was replaced, probably during this period, by a new military alliance embracing all the states, Latin or non-Latin, that the Romans had subdued by then (called the *socii*, or "allies"). Unlike the *foedus*, which was a multilateral treaty (or bilateral between Rome and all the other Latin states together), the new arrangements were based on bilateral treaties between Rome and each of a large number of allies. The new system was probably much more Roman-dominated than the *foedus*. Strategy was determined by the Roman Senate alone, joint forces were always levied and command of joint forces was to be always in Roman hands. These measures quadrupled the size of a normal consular army, from ca. 5,000 to ca. 20,000 men.

This period is also regarded by some historians as the most likely time of introduction of the "Servian" centuriate organization which underpinned the military levy. The period also saw the introduction of new equipment, including armour for the cavalry and chain-mail armor, the *gladius* (a sword of Spanish design) and the *pilum* (a heavy javelin) for the infantry.

Equipment

On the basis of Etruscan representations, it has been widely accepted that the main early Roman infantry were armoured hoplites. These would probably have worn bronze helmets, breastplate and greaves and a round leather or large circular bronze-plated wooden shield. They were armed with a spear, sword and dagger.^[40]

According to the ancient Greek historian Polybius, whose *Histories* (written ca. 140s BC) are the earliest substantial extant account of the Republic, Roman cavalry was originally unarmoured, wearing only a tunic and armed with a light spear and ox-hide shield which were of low quality and quickly deteriorated in action.^[41]

Tactics

As it appears that early Roman heavy infantry were armed as Greek-style hoplites, so it is assumed that it followed the Greek practice of fighting in a "phalanx" formation. This was a deep (8 ranks or more), densely-packed formation of heavily-armoured spearmen, developed in Greece in the 7th century BC. The phalanx would aim to charge and break through the enemy line. Fighting was in tight formation, stabbing with the spear. Phalanx fighting required extensive training, as holding formation was critical to success.^[42]

Goldsworthy points out, however, that the phalanx was only suitable for large-scale set-piece battles.^[43] It was impractical for the small-scale raiding and skirmishing that remained the most frequent type of fighting that Rome was involved in during this period.^[44] Despite the establishment of a national levy in the Regal Era, aristocratic war-bands continued to play a role into the first decades of the Republic e.g. the war-band of the Fabii, which in 479 BC was charged by the *praetores* with guarding Roman territory against raids from the neighbouring Etruscan city of Veii (only to be ambushed by the Veientes and wiped out, supposedly leaving only one Fabius alive to perpetuate the clan).^[45] In these minor operations, a smaller tactical unit would have been essential and there is no reason to doubt that it was the *centuria*. Most likely in the regal period it actually consisted of 100 men, as its name implies.^[46] Light infantry (*velites*) and cavalry would also have been important in small-scale skirmishes.



Relief of a Spartan hoplite, ca. 510 BC. Detail from the Vix bronze *krater*, Musée du Pays Châtillonnais, France



Reconstruction of Greek hoplites in phalanx formation ca. 480 BC

Notes

- [1] Cornell (1995) 96, 103, 203-9
- [2] Cornell (1995) 119-21
- [3] Cornell (1995) 245
- [4] Cornell (1995) 141–42
- [5] Cornell (1995)
- [6] Cornell (1995) 226-9
- [7] Cornell (1995) 209-11
- [8] Cornell (1995) 299
- [9] Cornell (1995) 305
- [10] Cornell (1995) 304-9
- [11] Cornell (1995) 320
- [12] Livy VI.2; Polybius II.18
- [13] Cornell (1995) 318-22
- [14] Eckstein (2006) 132-3
- [15] Livy VI.1
- [16] Livy II.49.4
- [17] Livy II.21.1
- [18] Fields (2007) 4-5
- [19] Cornell (1995)
- [20] Fields (2007) 5
- [21] Goldsworthy (2000) 35
- [22] Livy I.15, 36
- [23] Cornell (1995) 182-2
- [24] **Servian centuriate organisation:** Livy claims that king Servius Tullius (traditional dates: 578-536 BC) divided the Roman citizen-body into 5 classes based on assessed wealth for the purposes of infantry service, specifying the equipment that recruits from each class were required to wear, to be paid for from their own resources. Each class was supposedly expected to supply a specified number of *centuriae* to the levy. Livy I.43 However, Livy's scheme would have resulted in the majority of the total levy being raised from the two top property classes, which were numerically tiny, a nonsensical proposition. Scholars agree that the *centuriae* referred to by Livy must have been political, rather than military, divisions and cannot have been introduced until much later (although their actual date of introduction remains controversial, with suggestions ranging from ca. 400 BC to ca. 200 BC). Cornell (1995) Furthermore, the equipment details for each class given by Livy are probably garbled, although their broad thrust, that a majority of the levy were now equipped as hoplites, is supported by the archaeological evidence. Cornell (1995)
- [25] Cornell (1995) 181-2
- [26] Cornell (1995) 209
- [27] Cornell (1995) 204-7
- [28] Goldsworthy (2000) 35
- [29] Fields (2007) 5
- [30] Livy I.36
- [31] Polybius
- [32] Livy I.43
- [33] Cornell (1995) 193
- [34] Cornell (1995) 250
- [35] Cornell (1995) 238, 446 note 32
- [36] Cornell (1995) 182
- [37] Livy
- [38] Fields (2007)
- [39] Dionysius I
- [40] Goldsworthy (2003)
- [41] Polybius I.
- [42] Goldsworthy (2000) 34
- [43] Goldsworthy (2000) 38
- [44] Goldsworthy (2000) 38
- [45] Livy II.49.4
- [46] Goldsworthy (2000) 35

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Roman army of the mid-Republic

The **Roman army of the mid-Republic** (also known as the **manipular Roman army** or the "**Polybian army**"), refers to the armed forces deployed by the mid- Roman Republic (c. 300-88 BC) in its classic manipular structure, as described in detail in the *Histories* of the ancient Greek historian Polybius, writing before 146 BC.

The central feature of the mid-Republican army was the manipular organisation of its battle-line. Instead of a single, large mass (the phalanx) as in the Early Roman army, the Romans now drew up in three lines (*triplex acies*) consisting of small units (maniples) of 120 men, arrayed in chessboard fashion, giving much greater tactical strength and flexibility. This structure was probably introduced in c. 300 BC during the Samnite Wars. Also probably dating from this period was the regular accompaniment of each legion by a non-citizen formation of roughly equal size, the *ala*, recruited from Rome's Italian allies, or *socii*. The latter were about 150 autonomous states which were bound by a treaty of perpetual military alliance with Rome. Their sole obligation was to supply to the Roman army, on demand, a number of fully equipped troops up to a specified maximum each year.



Contemporary portrait of Scipio Africanus, engraved on a gold signet-ring manufactured in Capua, S. Italy. Considered the greatest Roman military leader of the Second Punic War, Scipio permanently drove the Carthaginians out of Spain in a series of brilliant campaigns (210-206 BC) and then became the sole Roman general to defeat Hannibal on the battlefield, at Zama in 202 BC. The army that Scipio led was that described by Polybius in Chapter VI of his *Histories*

The Second Punic War (218-201 BC) saw the addition of a third element to the existing dual Roman/Italian structure: non-Italian mercenaries with specialist skills lacking in the legions and *alae*: Numidian light cavalry, Cretan archers, and slingers from the Balearic islands. From this time, these units always accompanied Roman armies.

The Republican army of this period, like its earlier forebear, did not maintain standing or professional military forces, but levied them, by compulsory conscription, as required for each campaigning season and disbanded thereafter (although formations could be kept in being over winter during major wars). Service in the legions was limited to property-owning Roman citizens, normally those known as *iuniores* (age 16-46). The army's senior officers, including its commanders-in-chief, the Roman Consuls, were all elected annually at the People's Assembly. Only members of the Roman Order of Knights were eligible to serve as senior officers. *Iuniores* of the highest social classes (*equites* and the First Class of commoners) provided the legion's cavalry, the other classes the legionary infantry. The *proletarii* (those assessed at under 400 *drachmae* wealth in c. 216 BC) were ineligible for legionary service and were assigned to the fleets as oarsmen. Elders, vagrants, freedmen, slaves and convicts were excluded from the military levy, save in emergencies.

The legionary cavalry also changed, probably around 300 BC onwards from the light, unarmoured horse of the early army to a heavy force with metal armour (bronze cuirasses, and later, chain-mail shirts). Contrary to a long-held view, the cavalry of the mid-Republic was a highly effective force that generally prevailed against strong enemy cavalry forces (both Gallic and Greek) until it was decisively beaten by the Carthaginian general Hannibal's horsemen during the second Punic War. This was due to Hannibal's greater operational flexibility owing to his Numidian light cavalry.

For the vast majority of the period of its existence, the Polybian levy was at war. This led to great strains on Roman and Italian manpower, but forged a superb fighting machine. During the Second Punic War, fully two-thirds of Roman *iuniores* were under arms continuously. In the period after the defeat of Carthage in 201 BC, the army was campaigning exclusively outside Italy, resulting in its men being away from their home plots of land for many years at a stretch. They were assuaged by the large amounts of booty that they shared after victories in the rich eastern theatre. But in Italy, the ever-increasing concentration of public lands in the hands of big landowners, and the consequent displacement of the soldiers' families, led to great unrest and demands for land redistribution. This was successfully achieved, but resulted in the disaffection of Rome's Italian allies, who as non-citizens were excluded from the redistribution. This led to the mass revolt of the *socii* and the Social War (91-88 BC). The result was the grant of Roman citizenship to all Italians and the end of the Polybian army's dual structure: the *alae* were abolished and the *socii* recruited into the legions.

Main sources

As can be deduced from its "Polybian" epithet, the most important extant literary source on the Roman army of this period are *Histories* of the Greek historian Polybius, published in c. 160 BC. The surviving chapters cover the First and Second Punic Wars. Chapter VI contains a detailed analysis of the organisation and basic practices of the army. Polybius is generally seen by modern historians as a reliable and balanced source, but there are some inconsistencies and unclear points of detail in his account. These partly derive from his use of Greek terms to describe Roman military units and other terms. Moreover, the chronology of his account is uncertain. It has been suggested, from features such as joint consular armies, that he describes the army as it was c. 218 BC, at the start of the 2nd Punic War, considerably earlier than his time of writing (c. 160 BC).^[1] It is also possible that his account contains details from various historical periods. Polybius' source for Chapter VI remains uncertain. It has been suggested he was using an old army manual.^[1] The second most important literary source is *Ab Urbe condita*, a massive history of Rome published in ca. AD 20, by the Augustan-era Roman historian Livy, whose surviving books XXI-XLV cover the years 218-168 BC. Although a narrative history lacking a specific analysis of the army as in Polybius, Livy's work contains much incidental information about the army and its tactics. Also useful are the monograph on the

Jugurthine War by Sallust (published c. 90 BC) and the much later biographies of Roman leaders of the Republican period by Plutarch.

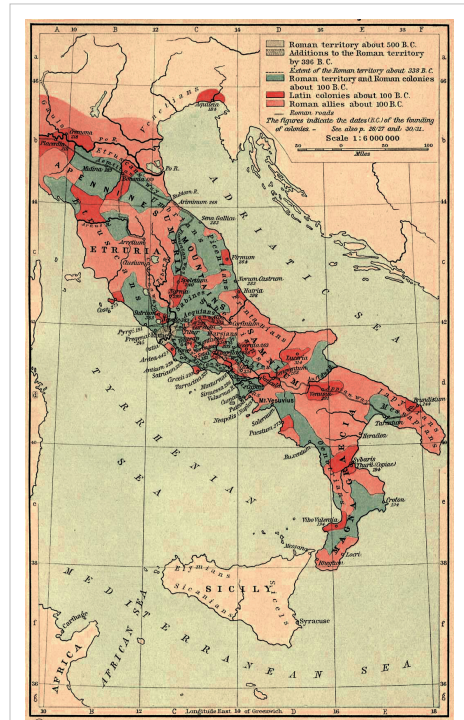
Unlike for the later imperial Roman army, relatively little epigraphic evidence and pictorial evidence survives for army of this period. The most important bas-relief is that on the tomb of Ahenobarbus (c. 122 BC), which provides the clearest and most detailed depiction of the equipment of mid-Republican officers and soldiers. The soldiers it depicts are: 1 senior officer, 4 infantrymen and 1 cavalryman. Otherwise, there is a lack of tombstones showing soldiers in military dress as are common from the Principate era. The earliest such, dating from 42 BC, is the Padova Centurion.^[2]

Published evidence from archaeological excavation is also far less abundant than for the imperial era, although it is growing rapidly. A critical corpus is from Roman fortified camps built around Numantia during campaigns in Iberia, including the Numantine Wars in Spain (155-133 BC). The most important excavated sites are the camps at Renieblas, which range in date from 195 to 75 BC (of these, camp III dates from the 153 BC campaign of consul Quintus Fulvius Nobilior). The Castillejo camp was occupied in by Gaius Hostilius Mancinus 137 and again by Scipio Aemilianus in 134/3 BC. A further site at Peña Redonda is notable.^[3] These sites, and others, have yielded both information of camp layout and finds of military and other equipment. This large sequence of sites was excavated in 1905-12 by Adolf Schulten, who interpreted the results as consistent with Polybius' detailed account of the design of Roman camps.^[4] However, a reassessment (2008) of the data (including the results of later excavation of the sites) by Michael Dobson has concluded that the Numantia data only partially supports Polybius.^[5] Also of major importance in our understanding of mid-Republican military equipment is the hoard of some 160 Roman weapons at Šmihel in Slovenia (known to the Romans as western Pannonia), dating from the period 200-150 BC. This site was along the major Roman route from Aquileia to Emona (Ljubljana). Originally unearthed in 1890, these finds were not fully published until around AD 2000. They include 1 helmet, 4 swords (2 of them *gladii*), 2 spears, 106 *pila* of various types, 37 javelins, arrowheads and other miscellaneous items.

Background: The Roman/Italian military confederacy

The Roman/Italian military alliance had fully evolved by 264 BC and remained for 200 years the basis of Roman military organisation. From 338 BC to 88 BC, Roman legions were invariably accompanied on campaign by an equal number of somewhat larger allied units called *alae* (literally: "wings", as allied troops would always be posted on the flanks of the Roman battle-line, with the Roman legions holding the centre). 75% of a normal consular army's cavalry was supplied by the Italian *socii*.

The alliance was distantly descended the *foedus Cassianum* ("Treaty of Cassius", 493 BC) signed by the fledgling Roman republic with its neighbouring Latin city-states shortly after the overthrow of the Roman monarchy in 510 BC. This was an indefinite military alliance with the other city-states of Old Latium, the home of the Latin tribe, to which the Romans themselves belonged. Although extant details are fragmentary, the treaty's basic features were a mutual non-aggression and defense pact, requiring all signatories to assist any of their number who was attacked with all their forces. It also appears to have provided for joint operations in the field, if such were decided upon at an annual conference. Judging by the provision that the Romans and Latins were to share booty on an equal basis, it is likely that the treaty required the Latins to contribute roughly the same number of troops to joint operations as Rome. It appears that command of any joint forces may have alternated between Romans and allies.^[6] The motive factor behind the alliance was the threat posed to the cities of Old Latium by the surrounding Italic hill-tribes, notably the Volsci and Aequi, whose incursions intensified in this period. By 358 BC, however, the hill-tribe menace had receded and the Romans repudiated the *foedus*. The succeeding period saw a steady increase in Roman encroachment in Old Latium.



Map of the Roman confederation in 100 BC, on the eve of the Social War. Note the patchwork political configuration. The Roman possessions (in grey-blue) straddle the strategic centre of the Italian peninsula and the Tyrrhenian coastal plain. Latin colonies (dark red) are scattered in strategic locations. Other *socii* (pink) are concentrated in the mountainous interior

In 341 BC, the Latin League, a confederation of the other city-states of Old Latium, went to war against Rome in an attempt to save what remained of their independence - the Latin War (341-338 BC). But the Romans won a decisive victory and annexed most of Old Latium, unifying the Latin nation under their hegemony for the first time since the Tarquin era two centuries earlier.

Using the resources of their expanded territory, the Romans proceeded to establish control of much of the Italian peninsula by 264 BC. The defunct *foedus Cassianum* with the Latins was replaced by a new type of military alliance with the Italian city-states and tribes. As each was progressively subdued, a part of its territory would be annexed by Rome to provide land for Roman/Latin colonists. The defeated state would be allowed to keep the rest of its territory in return for binding itself to Rome with a perpetual treaty of military alliance.. Unlike the Latin alliance, which was founded on a basis of equality between Rome and the other Latin city-states, the new system reflected Roman hegemony. Strategy was determined by the Roman Senate alone, joint forces were always levied and these were always under Roman command.

The system was based on a series of bilateral treaties between Rome and, by 218 BC, about 150 Italian city-states and tribal cantons (known collectively as Rome's *socii* ("allies")). These would require the ally to "have the same friends and enemies as Rome", effectively prohibiting war against other *socii* and surrendering foreign policy to Rome. Beyond this, the sole obligation on the ally was to contribute to the confederate army, on demand, a number

of fully equipped troops up to a specified maximum each year, to serve under Roman command. The obligation on the ally was thus purely military, and not tributary. Little is known about the size of contingent each *socius* was required to provide, and whether it was proportional to population and/or wealth. The vast majority of *socii* were required to supply land troops (both infantry and cavalry), although most of the coastal cities were *socii navales* ("naval allies"), whose obligation was to provide either partly or fully crewed warships to the Roman fleet.

Despite the loss of territory, independence and heavy military obligations, the system provided substantial benefits for the *socii*. Most importantly, they were freed from the constant threat of aggression from their neighbours that had persisted in the anarchic centuries prior to the imposition of the *pax Romana*. In addition, the Roman alliance protected the Italian peninsula from external invasion, such as the periodic and devastating incursions of Gauls from the Po Valley. Although no longer in control of war and foreign policy, each *socius* remained otherwise fully autonomous, with its own laws, system of government, coinage and language. Moreover, the military burden was only half that shouldered by Roman citizens, as the latter numbered only about half the population of the *socii*, but provided around half the total levies. Despite this, allied troops were allowed to share war booty on a 50-50 basis with Romans.

Despite these benefits, some *socii* rebelled against the alliance whenever the opportunity arose. The best opportunities were provided by the invasions of Italy by the Greek king Pyrrhus in 281-75 BC and by the Carthaginian general Hannibal in 218-03 BC, during the Second Punic War. During these, many *socii* deserted Rome and joined the invaders, mostly Oscan-speakers of southern Italy, notably the Samnite tribes, who were Rome's most implacable enemy. On the other hand, many *socii* remained loyal, motivated primarily by antagonisms with neighbouring rebels. Even after Rome's disaster at the Battle of Cannae (216 BC), over 50% of the *socii* (by population) did not defect and Rome's military alliance was ultimately victorious.

Expansion of the Roman Republic

The Polybian army's operations during its existence can be divided into 3 broad phases. (1) The struggle for hegemony over Italy, especially against the Samnite League (338-264 BC); (2) the struggle with Carthage for hegemony in the western Mediterranean Sea (264-201 BC); and the struggle against the Hellenistic monarchies for control of the eastern Mediterranean (200-91 BC).

The first phase saw operations confined to the Italian peninsula. The second phase featured operations both in Italy (during Hannibal's invasion 218-203 BC) and other regions of the western Mediterranean: Sicily, Sardinia, Spain and North Africa. During final phase, operations were exclusively conducted overseas, both in the western and eastern Mediterranean.

Army evolution

The Early Roman army, from c. 550 to c. 300 BC, is widely believed to have been equipped Greek-style, as hoplite heavy infantry, complemented by light (unarmoured) infantry and light cavalry. The hoplites would fight, in set-piece battles, as a phalanx, or single, deep line of spearmen. The army was levied, from landholding farmers, for a single campaigning-season each year. It is believed that in the late regal period (550-500 BC), the standard levy was a single legion numbering 9,000 men (6,000 hoplites, 2,400 light infantry and 600 cavalry). In the early Republican period (to c. 300 BC), the levy was split equally into two legions of 4,500 men each. The legion's sub-division, for both recruitment and tactical purposes, was the *centuria*, or company, of about 100 men each. Since most fighting in the early period was in the form of small-scale raids and skirmishes, rather than large set-piece battles, it is likely that most encounters were fought by single *centuriae* acting independently.

The gruelling contest for Italian hegemony that Rome fought against the Samnite League led to the transformation of the Roman army from a Greek-style phalanx to the Italian-style manipular structure described by Polybius, which was probably copied from their enemies the Samnites, learning through hard experience its greater flexibility and

effectiveness in the mountainous interior of central southern Italy.^[7] It appears that the manipular structure was in place during the Pyrrhic War (280-275 BC).^[8] From this time onwards, instead of fielding a single line in battle, the Romans appear to normally have drawn up in three lines (*triplex acies*) of heavy infantry, called (front to rear) *hastati* (literally: "spear-bearers"), *principes* ("main-liners") and *triarii* ("third-rankers"). It is presumed that originally all three lines were equipped with the thrusting-spear (*hastae*, i.e. all three lines were once *hastati*), but with the introduction of the *pilum* (a heavy javelin) around 250 BC, only the rear rank retained *hastae*.^[9]

It is also from this time that the normal annual levy was doubled to 4 legions (2 per Consul). In addition, every Roman army which took the field was from this time regularly accompanied by at least as many troops supplied by the *socii*.^[10] Thus, each consular army fielded was now quadruple the size of the earlier army.

Closely following the changes in organisation, came the introduction of new, more effective weaponry and armour. During the First Punic War (264-241 BC), in Sicily, the Romans encountered Spanish warriors for the first time, serving as mercenaries for Carthage. The Iberians of the time were renowned for the design and manufacture of high-quality weapons, most notably the *gladius Hispaniensis*, the "Spanish sword", which remained the standard close-combat weapon of Roman infantrymen until the 3rd century AD. Although Polybius states that the *gladius* was adopted by the Romans during the 2nd Punic War, it is clear from elsewhere in his own narrative that it was already in use during the Gallic invasion of 225 BC.^{[11][12]} The *gladius* replaced the generally shorter stabbing-swords of Italic design used until then.^[13] The Romans were able to marry, from the time for the 2nd Punic War, the superb design of the *gladius* with the finest-quality steel then available in western Europe, the *ferrum Noricum*, from the Alpine kingdom of Noricum (roughly modern Austria). The *pilum*, a heavy javelin that eventually all Roman foot-soldiers were equipped with, was probably also of Spanish design and also adopted during the 1st Punic War. (Alternatively, it has been suggested that the *pilum* was of Samnite origin, but there is no evidence that the Samnites possessed any such weapon).^[12] For the front two ranks, the *pilum* replaced the heavy thrusting-spear called the *hasta*, with which all infantrymen were until then equipped.^[14] A somewhat later innovation was the introduction of the *lorica hamata*, or chain-mail cuirass, replacing the bronze cuirass worn previously. Probably invented by the Celts of central Europe, mail was probably not adopted by the Romans before c. 200 BC, most likely after it was encountered during the Roman conquest of Cisalpine Gaul in the period 220-180 BC. By c. 122 BC, the date of the Ahenobarbus monument, it appears from the friezes that mail was standard for all infantrymen.

The next milestone in the development of the army was the Second Punic War. Hannibal's victories highlighted the deficiencies of the Roman army, which had evolved to fight wars against similarly equipped forces of competing Italian states. The infantry lacked specialist missile troops such as archers (*sagittarii*) and slingers (*funditores*). From c. 218 BC onwards, Roman armies regularly hired mercenary units of archers from Crete and slingers from the Balearic islands (the inhabitants of these islands became synonymous with slingers: *Baleares* was an alternative name for "slingers" in classical Latin). At the same time, Roman cavalry had become a heavy armoured force specialising in the shock charge. While formidable, it lacked the operational flexibility afforded by the light Numidian cavalry (*equites Numidae*) so effectively employed by Hannibal in conjunction with his own heavy cavalry (Iberians and Gauls). From 206 BC, when the Numidian king Massinissa switched sides from Carthage to Rome, until the 3rd century AD, Roman armies were almost always accompanied by troops of Numidian light horse.

From the end of the Second Punic War (201 BC) onwards, the Republic's army fought exclusively outside Italy as it conquered a Mediterranean empire. This required men to remain under arms abroad for much longer periods, which was unpopular with farmer-conscripts concerned with the neglect of their plots. Their political pressure resulted in the passage of a law that conscripts could not be required to serve for more than 6 years consecutively. To circumvent this, there is evidence that the army in this period recruited ever higher numbers of volunteers for long-term service. The most suitable such recruits were from the ranks of the *proletarii*, the landless lowest social class, as they had no farms to tend and would be most attracted by the prospect of substantial gain in the form of booty. But the *proletarii*, despite being the largest social class, were excluded from service in the legions because they did not meet the minimum property-threshold. It appears that the property rule was waived for volunteers from

this time onwards. This is shown by the career of Spurius Ligustinus, as related by Livy. This quasi-professional soldier volunteered in 200 BC and served a total of 22 years, reaching the rank of a senior centurion. But he owned a tiny plot of just 1 *iugum* (0.25 hectare) of land, only half the 2 *iugera* regarded as the equivalent of the minimum property-qualification.^[15]

The consulship of Gaius Marius (107 BC) saw the supposed launch of the so-called "Marian reforms" of the army. More dated scholars have ascribed to this general many of the changes that had transformed the Republican army by the time of its next extant detailed description in the pages of Julius Caesar's *De Bello Gallico* (composed in 51 BC), namely:

1. Admission of *proletarii* to legionary service
2. Recruitment of large numbers of volunteers
3. Replacement of maniples with cohorts as the main legionary tactical unit
4. Abolition of legionary cavalry

In reality, the sole documented reform by Marius was the establishment (in 104 BC) of the eagle (*aquila*) as the sole animal-symbol to be used on the legion's standard (previously there had been a choice of 5 different animals, including the eagle).^[16] The attribution to Marius of the other changes is purely speculative, and probably erroneous also.

(1 and 2): Marius is credited with recruiting to his legions large numbers of *proletarii* in violation of the minimum property-requirement.^[17] As the career of Ligustinus shows, *proletarii* volunteers were admitted as early as 200 BC, while for conscripts the property threshold had been progressively reduced to a nominal level: according to Livy, the original threshold had been 11,000 *asses* (1,100 *drachmae*); Polybius reports that it stood at 400 *drachmae* (4,000 *asses*) in c. 216 BC; in 140 BC, it was reduced to 1,500 *asses*, by then worth just under 100 *drachmae*. Marius simply acknowledged the reality that the property requirement had by his time effectively lapsed.

(3) Livy mentions cohorts of Italian allies in Spain during the 2nd Punic War, and it has been argued that the 2nd Punic War-era Roman general Scipio Africanus first introduced this unit in the legions almost a century before Marius' consulship.^[18] The most recent analysis of archaeological data on the layout of Republican camps at Numantia suggests that cohorts were introduced gradually in the period from c. 140 BC and the process was probably complete by the time Marius was elected Consul.^[19]

(4) Roman cavalry is attested under Marius himself at the Battle of Vercellae (101 BC).^[20] McCall argues that legionary cavalry was probably abolished during the Social War (91-88 BC).^[21] But even this is uncertain. It is widely believed that Julius Caesar's legions in the Gallic war had no attached cavalry.^[22] This is based on an incident in 58 BC when Caesar, who needed a large cavalry escort to meet the German king Ariovistus, ordered his Gallic allied cavalry, whom he did not yet fully trust, to hand their horses to soldiers of the 10th Legion, which was from that time jokingly nicknamed *equestris* ("the mounted legion").^[23] However, according to Plutarch, 7,000 cavalry "from the flower of Rome and Italy" served in Pompey's army at the Battle of Pharsalus (48 BC).^[24]

Far more significant for the Republican army's development than the Marius' career was the Social War (91-88 BC), in the aftermath of which all the inhabitants of peninsular Italy were granted Roman citizenship. This spelled the end of the old dual Romans/*socii* structure of the army. The *alae* were abolished, and all Italians recruited into the legions.^[25]

Army structure

Until 200 BC, the Republican army, like its earlier forebear, did not maintain standing or professional military forces, but levied them, by compulsory conscription, as required for each campaigning season and disbanded them thereafter (although formations could be kept in being over winter, and for several years consecutively, during major wars). After Rome acquired an overseas empire following the Punic Wars, armies stationed in key provinces became in effect standing forces, although no conscript could legally be required to serve more than 6 years consecutively.

The forces levied (or kept under arms) each year were normally divided equally between the two Consuls, but the Senate could place additional forces under the command of the Praetors, as well as extend the single-year command of both types of Roman magistrate, in which case they assumed the title of proconsul and propraeor respectively. Following the Punic Wars, proconsuls and propraeors served as the governors of the provinces of the overseas empire, in command of the military forces deployed there for a set term (normally 3 years).

While Roman citizens were recruited to the legions, the Latin and Italian allies were organised into *alae* (literally: "wings", because they were always posted on the flanks of the Roman line of battle). From the time of the Samnite Wars, when the number of legions levied each year was doubled to four, a normal consular army would contain two legions and two *alae*, or about 20,000 men (17,500 infantry and 2,400 cavalry). In times of emergency, a Consul might be authorised to raise a double-strength army of 4 legions, but the allied *alae* would always number two, as they represented the two wings of the battle-line, but be double-strength e.g. at the Battle of Cannae in 216 BC, where each Consul commanded an army of about 40,000 men.^[26]

In battle, it was the custom to draw up the Roman legions in the centre of the infantry line, with the Latin *alae* on the flanks. Hence, the 2 *alae* in a normal consular army were named *dextra* ("right" *ala*) and *sinistra* or *laeva* ("left" *ala*).^[27] The Roman cavalry was posted on the right wing, the allied Italian cavalry held the left. The left wing thus outnumbered the right by 3 to 1, a practice exploited by Hannibal at Cannae, who drew up his best cavalry to face the much smaller Roman cavalry and quickly routed it. The order of battle of a normal consular army could be summarised thus:

ORDER OF BATTLE OF A NORMAL ROMAN CONSULAR ARMY 3rd/2nd centuries BC^[28]

Left wing	XXXX	Left flank	Left centre	Right centre	Right flank	XXXX	Right wing
EQUITES LATINI (1,800 cav)		ALA LATINA SINISTRA (about 4,200 inf)	LEGIO ROMANA I* (4,200 inf)	LEGIO ROMANA III* (4,200 inf)	ALA LATINA DEXTRA (about 4,200 inf)		EQUITES ROMANI (600 cav)

- **Note:** The legions in a consular army bore either odd or even numbers. In the case above, the other consular army would contain legions II and IV.^[29]

Senior officers

Each legion was officered by 6 *tribuni militum* ("tribunes of the soldiers"), totalling 24 tribunes for the normal levy of 4 legions. These were elected by the people's assembly from the ranks of those knights who had completed at least 5 years' military service, presumably in the cavalry.^[30]

In those years in which more than 4 legions were deployed, the tribunes needed to command the extra legions were appointed by the Consuls. Pairs of tribunes would take turns to command their legion for two-month terms.^[31]



A Roman senior officer (centre), of the time of Polybius, as depicted on a bas-relief from the Altar of Cn. Domitius Ahenobarbus, c. 122 BC. Most likely a *tribunus militum* (joint legionary commander). Note the plumed Attic helmet, engraved bronze cuirass, mantle, sash indicating equestrian rank, *pteruges*. The soldier on the left is wearing an Italian version of the Corinthian helmet, which has the face-guard permanently lifted back off the face, but retains its two eye-holes for decoration. Musée du Louvre, Paris

In addition, knights provided the 3 decurions (*decuriones*, literally "leaders of ten men") who commanded each *turma* of cavalry, and the *praefecti sociorum*, the commanders of the Italian confederate *alae*, who were appointed by the Consuls.^[32] The duplication and rotation of command was a characteristic feature of the Roman Republic, which from the time of the expulsion of the kings, had always aimed for collegiate offices, to avoid excessive concentration of power (e.g. 2 Consuls, 2 Praetors etc.). Knights (and anyone else) who aspired to public office were required to perform at least 10 years' military service, which implies that the minimum age for public office was 27 years (16+10)^[30]

A military tribune wore a bronze cuirass (often engraved), *pteruges*, a mantle, and an Attic-style helmet with horsehair plume. Unlike lower ranks, officers never adopted chain-mail armour.

Legionary infantry

Levy and conditions of service

Conscription of recruits would take place in the Campus Martius (Field of Mars) on the outskirts of Rome under the supervision of the Consuls.

Service in the legions was limited to property-owning Roman citizens, normally those known as *iuniores* (age 16-46). Elders, paupers, debtors, convicts, freedmen and slaves were excluded, save in emergencies. The service that each recruit was assigned to depended on his property-assessed social class. Each soldier was originally expected to pay for his own equipment, so persons of the lowest class below assessed wealth of 400 *drachmae* (in c. 216 BC) were not eligible for service in the legions. According to the Greek author Polybius, these were assigned to naval service as oarsmen, which required no equipment.^[30] Of the other classes, the poorest troops would join the *velites* (singular form: *vels* = light infantry), who did not bear body-armour and whose equipment was thus less expensive than a heavy infantryman's.^[33] Those with the highest property rating, and thus able to afford their own horse, joined the cavalry.^[34] The majority of Roman foot-soldiers came from the families of small farmer-freeholders (i.e. peasants who owned small plots of land).^[35]

At an early stage, however, the state assumed the cost of armour and weapons, probably when pay was introduced for both infantry and cavalry around 400 BC. However, it is unclear whether the cost of armour and weapons was deducted from pay: food, clothing and other equipment certainly were.^[36] Armour and weapons were certainly provided by the state by the time of the Second Punic War, during which the minimum property-qualification was largely ignored because of manpower shortages. This position probably continued after the war, at least as regards volunteers.

Iuniores infantrymen (aged 16–46) were liable to call-up for a maximum of 16 campaigns (but no more than 6 years in succession) until age 46, although this could be extended to 20 years in emergencies (men over 46 years of age, known as *seniores*, were not liable to call-up save in emergencies). At the time of Polybius, pay was set at 2 *obols*, or a third of a *drachma* (*denarius* after 211 BC) per day, for the period that they were held under arms.^[36] (For comparison, an imperial-era legionary of the 1st century AD was paid around twice as much per day until around AD 85, and nearly 1 *denarius* per day thereafter, year-round, as they were professionals). In addition, the foot-soldier was entitled to a share in the spoils of war (captives sold as slaves, animals, treasure, weapons and other goods) which were sold at auction and the proceeds distributed to officers and men according to established criteria.

Organisation

The normal size of a legion in this period was 4,200 infantry, of which 3,000 was heavily armed and 1,200 *velites* (plus 200-300 cavalry). In times of emergency, a legion of 5,000 infantry could be levied, of which 3,800 would be heavy infantry.^[34] However, Polybius and Livy also mention legions of 6,000 infantry.^[8] This has led Roth to conclude that Republican legions were variable in size, depending on circumstances when they were raised.^[37] The heavy infantry of the earlier legion was organised into 30 *centuriae* units of 100 men each. The subdivisions in the mid-republican period were called maniples (*manipuli*, from *manus* = "hand"). There were 10 maniples in each of

the three lines that a legion was drawn up in for battle: *hastati*, *principes* and *triarii*, for a total of 30 maniples in each legion. The maniples of the front two lines contained twice as many men (120) as those in the rear line (60).^[34] If the legion numbered 5,000 men, the maniples in the front lines were increased to 160 men each.^[38] Membership of each line was determined by age-group: the *hastati* contained the younger men (up to 25 years old); the *principes* those in the 26-35 group; and the *triarii* the older men (36-46).^[38]

Each maniple was commanded by 2 centurions (*centuriones*, literally "leaders of 100 men"), one senior (*prior*), one junior (*posterior*), who were elected by the unit's members.^[39] Centurions were paid double the rate of their men (i.e. 4 *obols*, or two-thirds of a *drachma* per day).^[36] Each centurion would then appoint a deputy (*optio*), whose role was to supervise the rear of the unit in action, while the centurions led from the front.^[39] In addition, each maniple included 2 *signiferi* (standard-bearers), appointed by the centurions, and at least one *tubicen* (trumpeter).^[25]

The presence of two centurions and two standard-bearers in each maniple has led many historians to assume that a maniple contained two *centuriae*, the basic unit of the earlier Roman army. In this scenario, the *centuriae* of the front two ranks would contain 60 men each.^[40] But Polybius makes clear that the maniple was the smallest tactical unit in the army.^[41] Furthermore, the sources are clear that a maniple possessed only one *signum*, or standard.^[42] Indeed, *signum* was used as an alternative name for *manipulus*.^[39] Thus, the role of the maniple's second *signifer* was presumably to act as a substitute for the first if the latter fell in combat.^[43] This is how Polybius explains the presence of two centurions in each maniple, emphasizing that the senior one was in command of the maniple.^[39] Furthermore, if each maniple contained two *centuriae*, the *centuriae* of the *triarii* would contain only 30 men each, improbably few for a unit that was nominally 100-strong. Thus, it is possible that *centuriae* did not exist in this period and were wholly replaced by maniples.

Equipment

There were no professional officers. Each of the two army corps (of two legions and two *alae* each) normally levied every year was commanded by one of the two Roman Consuls, the highest of the annually elected magistrates. Roman knights (*equites*) were exclusively eligible to serve as senior officers of the army.^[44]



Detail from the Ahenobarbus relief showing (centre-right) two Roman foot-soldiers ca. 122 BC. Note the Montefortino-style helmets with horsehair plume, chain-mail cuirasses with shoulder reinforcement, oval shields with calfskin covers, *gladius* and *pilum*



Colour sketch of a Roman infantryman as shown in the Ahenobarbus relief

Body armour

Chain-mail cuirasses (known then simply as the *lorica*) offered superior protection to bronze and was more flexible and easy to wear. Mail was, however, heavier and more expensive to manufacture. The mail cuirasses worn seem to have had a double thickness on the shoulders for extra protection against downward cuts.^[45] Polybius states that only those soldiers rated over 10,000 *drachmae* (i.e. the First Class of commoners) wore a mail-shirt, while the rest wore a *pectorale*, or small, square breastplate designed to protect the heart.^[46] However, this is highly unlikely. The First Class at this time served mainly in the cavalry, so this would imply that only a tiny minority of heavy infantrymen wore mail. This contradicts their description as "heavy" infantry and would also result in different armour within the same ranks. As the Ahenobarbus monument shows all foot soldiers in mail armour, it would appear that by c. 120 BC at the latest, mail was standard issue.



The bowl of a Montefortino-type helmet, which was used by Roman infantry between ca. 300 BC and the 1st century AD. The cheek-guards are missing, although their hinges are visible. The knob on the top was used to hold black plumes

Helmets

Polybius does not describe in detail the helmets of heavy infantry. However, the Ahenobarbus friezes and archaeological discoveries show that the "Montefortino" type was prevalent. This was made of bronze, and only protected the face with cheek-guards, so as not to obstruct soldiers' vision, hearing, breathing and shouting-range. According to Polybius, the foot-soldier adorned his helmet with three tall black or purple plumes to look taller and more awesome to the enemy.^[46] Other helmet types used was an Italian version of the Corinthian helmet. The latter had a face-guard with two eye-holes which could be lifted off the face when out of combat. But the Romans did not like face-guards, because they obstructed soldiers' senses. In the Italo-Corinthian helmet, the face-guard was worn off the face at all times, although the eye-holes were retained for decoration. Also used were Attic-type helmets, which were popular in Italy because they left the face unobstructed.^[47]

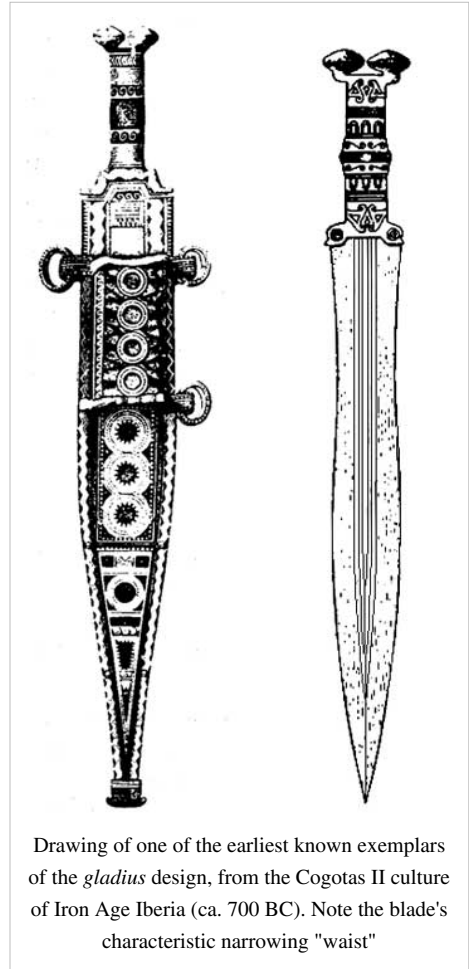
Shield

The heavy infantry shield (*scutum*) was a long oval in shape and convex, made of two layers of wood glued together, with canvas and calf-skin covers and an iron boss at the centre.^[25] This provided very good overall protection and the boss could be used as a weapon, to be smashed in the face of the enemy.^[48]

Pilum

Polybius states that the three lines of heavy infantry were equipped with similar weapons and shields, save that the *triarii* were armed with a heavy thrusting-spear (*hasta*), while the *hastati* and *principes* held two *pila* (throwing-javelins, singular form: *pilum*), one heavy, the other light.^[46] The *pilum* was a type of heavy javelin designed for launch at short range (15m or less). It consisted of a wooden shaft with a long shank with barbed point affixed to one end, either attached by rivets or socketed into the shaft itself. The weapon thus had great penetrative power, as its weight, unusually high for a javelin, was channeled into a tiny point. It was designed to punch through an enemy's shield and penetrate the shield-bearer's body behind it. If successful, the enemy would be pinned to his shield and placed *hors de combat*. Even if the bearer was not struck, the barb on the *pilum* point would prevent him from removing it from his shield, rendering it useless.^[3]

Modern reconstruction of the heavy *pilum* according to Polybius' specifications has shown that it would have weighed some 8.5 kg, far too heavy to be of any practical use as a throwing-weapon. The light *pilum* would have weighed a more serviceable 2.2 kg.^[49] The *pilum* used during the earlier period was not as sophisticated as the fully developed weapon used in the later Republic: it did not feature lead counterweights or a buckling shank until around 150 BC.^[50]



Gladius

The few exemplars of Republican *gladii* found show that these were significantly longer (and heavier) than those of the imperial period.^[13] Typical blade-length was 60–68 cm, compared to 45–55 cm in the 1st century AD. This made the early *gladius* suitable for use by cavalry as well as infantry. The characteristic shape of the *gladius* blade, narrowing in the middle to provide greater balance and stabbing-force, was more pronounced in the Republican than imperial types. Although stabbing remained the preferred method of combat for the Romans, as it was far more likely to result in fatal wounds than slashing, the advantage of the *gladius* over the Italic sword-types previously used by the Romans were that it could be used for slashing (with both edges) as well as more effective stabbing.^[51]

The *gladius* was made of the best-quality steel then available, the *chalybs Noricus*, celebrated in Roman times, from the region of Noricum (Austria). The strength of iron is determined by its carbon content (the higher the content, the stronger the metal). The wrought iron produced in the Greco-Roman world generally contained only minimal traces of carbon and was too soft for tools and weapons. It thus needed to be carburised to at least 1.5% carbon content. The main Roman method of achieving this was to repeatedly reheat the wrought iron to a temperature of over 800 C (i.e. to "white heat") and hammer it in a charcoal fire, causing the iron to absorb carbon from the charcoal.^[52] This technique had been developed empirically, as there is no evidence that ancient iron producers understood the chemistry involved. The rudimentary methods of carburisation used rendered the quality of the iron ore critical to the production of good steel. The ore needed to be rich in manganese (an element which remains essential in modern steelmaking processes), but also to contain very little, or preferably zero, phosphorus, whose presence would compromise the steel's hardness.^[53] The ore mined in Carinthia (S. Noricum) fulfills both criteria to an unusual degree.^[54] The Taurisci Celtic people of Noricum empirically discovered that their ore made superior steel around 500 BC and established a major steel-making industry around it.^[55] At Magdalensberg, a major production and trading centre was established, where a large number of specialised blacksmiths crafted a range of metal products, especially weapons. The finished products were mostly exported southwards, to Aquileia, a Roman colony founded in 180 BC.^[53]

The *gladius* was structurally robust, very light for its size and superbly balanced, possessed razor-sharp blades and strong triangular point. It could wreak fearsome carnage: Livy relates the reaction of the Macedonians to the results of an early cavalry skirmish in the 2nd Macedonian War (200-197 BC): "The Macedonians were used to the relatively infrequent wounds caused by arrows and spears, as their traditional enemies were Greeks and Illyrians. When they saw the horrendous injuries inflicted with the Spanish sword - arms hacked off at the shoulder, heads entirely severed, bellies ripped open and guts hanging out - they realised the kind of weapons and the sort of enemy that they were up against, and a wave of fear spread through their ranks."^[56]

The light infantry (*velites*) wore no armour over their tunics. They wore a light helmet, probably of leather, covered by an animal-skin such as a wolf-skin, according to Polybius, and a small round shield (*parma*). They carried light javelins and a sword.^[57]

Tactics

For set-piece battles, the heavy infantry were usually drawn up in three lines (*triplex acies*). However, the vast majority of the heavy infantry (2,400 out of 3,000) were stationed in the front two lines, the *hastati* and *principes*. These lines contained were the younger recruits who were expected to do all the fighting. The rear line (*triarii*), was a reserve consisting of 600 older men who formed a line of last resort to provide cover for the front lines if they put to flight (and also to prevent unauthorised retreat by the front ranks). It is thus more accurate to describe the Roman battle-line as a double-line (*duplex acies*) with a small third line of reserve. It is this double line that constituted the most significant change from the previous single-line phalanx. The three lines of maniples were drawn up in a chessboard pattern (dubbed *quincunx* by modern historians, after the Latin for the "5" on a dice-cube, whose dots are so arranged).^[58] In front of the heavy infantry, would be stationed the legion's 1,200 *velites*. It appears that the *velites* were not members of the maniples. But for the purposes of battle, they were divided into 10 companies of 120 men,

each under the command of a senior centurion of *hastati*.^[39]

The replacement, for the two front lines, of the thrusting-spear with the thrown *pilum* implies a shift to a different tactic by the heavy infantry. The phalanx of spearmen was replaced by ranks of sword-fighters armed with javelins.

In the mid-Republican army, the central tactic was a shock infantry-charge, designed to put the enemy to flight as quickly as possible. *Hastati* legionaries would advance at a measured pace towards the enemy line. When the gap was only around 15m, each successive line of *hastati* would fling their two *pila*, draw their swords and break into a run, yelling their war-cry and charging into the enemy line. Smashing the enemy in the face with their shield-bosses, legionaries would use their *gladii* to stab the enemy in the groin, belly, or face, inflicting fatal wounds in the great majority of cases.^[59] Where the enemy was tribal and unarmoured, the initial impact alone frequently resulted in the collapse of the enemy line. Against advanced enemies such as the Greeks, the initial impact would at least disrupt the enemy line and, in the ensuing melee, the Romans would benefit from their improved weaponry.

***Alae* infantry**

The *socii* were summoned to arms by a message from the Consuls, ordering each ally to deliver a specified number of troops to a specified assembly-place (one location for each consular army) by a set deadline.^[38] At the assembly-point, where the legions would also muster, the allied troops would be allocated to an *ala* and placed under the command of Roman officers.^[60] Each Consul would then arrive from Rome to assume command of their army.^[60]

Compared to the manipular legion, Polybius gives little detail about the structure of an allied *ala*. An *ala* contained the same number of infantry as a legion (i.e. 4,200 or 5,000).^[61] It was commanded by 3 Roman *praefecti sociorum*, appointed by the Consuls, presumably with one acting as commander and the other two as deputies, as in the cavalry *turmae*.^[60] Reporting to the *praefecti* were the native commanders of each allied contingent, who were appointed by their own government.^[38] The allied infantry appears to have been divided into *cohortes*. The first mention of such units, which were eventually adopted by the legions (after the Social War), is in Livy's account of the Second Punic War. The size of the allied cohorts is uncertain, and may not originally have been standard units at all, but simply a generic term denoting the contingent from each *socius*. However, Livy's account of Scipio Africanus' operations in Spain during the 2nd Punic War mentions Italian allied units of 460, 500 and 600 men which he terms *cohortes*.^[62]

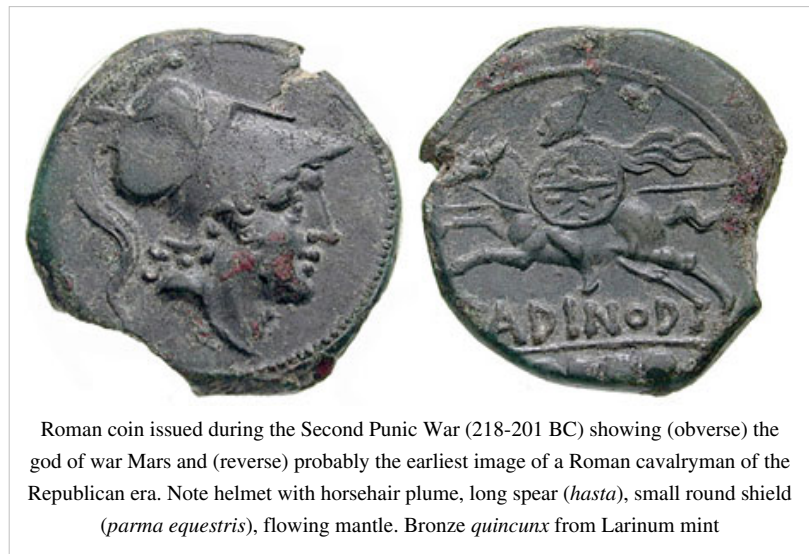
A select group of the best Italian allied troops, denoted *milites extraordinarii* ("special troops"), would be detailed to act as an escort brigade for the Consul. They would normally number one-third of the *alae* cavalry and one-fifth of the infantry (i.e. in a normal consular army, 600 horse and about 1,800 foot).^[60] The *extraordinarii* were at the immediate disposal of the Consul, and were allocated their own distinct position both in the line-of-march and in the marching-camp (next to the *praetorium*).^[63] However, in battle, there is no evidence that the *extraordinarii* occupied a special position. Presumably, they fought in their *alae*, alongside the rest of the *socii* troops.^[64]

There is no reason to believe that heavy infantry in the *alae* was equipped any differently from the legions, nor that they fought in a significantly different way.

Cavalry

Levy and conditions of service

The legionary cavalry during this period was drawn exclusively from the two wealthiest classes, the Order of Knights and the First Property Class of commoners. The latter had started to be admitted to cavalry service when the knights were no longer sufficiently numerous to satisfy the needs of the cavalry. This may have occurred as early as 400 BC, and certainly by the time of the Samnite Wars, when the normal levy of Roman cavalry was doubled to 1,200 (4 legions' contingent). According to Mommsen, First Class *iuniores* were all eventually required to join the cavalry.



Roman coin issued during the Second Punic War (218-201 BC) showing (obverse) the god of war Mars and (reverse) probably the earliest image of a Roman cavalryman of the Republican era. Note helmet with horsehair plume, long spear (*hasta*), small round shield (*parma equestris*), flowing mantle. Bronze *quincunx* from Larinum mint

As for infantry, pay was introduced for cavalrymen around 400 BC, set at a *drachma* per day, triple the infantry rate. Cavalrymen were liable to call-up for a maximum of 10 campaigns up to age 46.

The Second Punic War placed unprecedented strains on Roman manpower, not least on the Order of Knights and the First Class of commoners which provided the cavalry. During Hannibal's apocalyptic march through Italy (218-216 BC), thousands of Roman cavalrymen were killed in the field. The losses were especially serious for the equestrian order, which also provided the army's senior officers. Livy relates how, after Cannae, gold rings (a badge of knightly rank), recovered from the corpses of Roman knights formed a pile one *modius* (about 9 litres) large.^[65] In the succeeding years 214-203 BC, the Romans kept at least 21 legions in the field at all times, in Italy and overseas, with a Roman cavalry requirement of 6,300.^[66] This would have required the depleted ranks of knights to provide at least 252 senior officers (126 *tribuni militum*, 63 *decuriones* and 63 *praefecti sociorum*), plus the army commanders (Consuls, Praetors, Quaestors, proconsuls, etc.). It was probably from this time that knights became largely an officer-class, while legionary cavalry was henceforth provided mainly of commoners of the First Class.

Organisation

Each Polybian legion contained a cavalry contingent of 300 horse, which does not appear to have been officered by an overall commander.^[34] The cavalry contingent was divided into 10 *turmae* (squadrons) of 30 men each. The squadron members would elect as their officers 3 decurions, of whom the first to be chosen would act as the squadron's commander and the other two as his deputies.^[67] In addition, each allied *ala* contained 900 horse, three times the size of the legionary contingent. The allies would thus supply three-quarters of a consular army's cavalry.^[34]

Equipment

Legionary cavalry underwent a transformation during this period, from the light, unarmoured horsemen of the early period to the Greek-style armoured cuirassiers described by Polybius.^[67] It appears that until c. 200 BC, Roman cavalrymen wore bronze breastplates, but after that time, chain-mail became standard, with only officers retaining a breastplate.^[46] Most cavalrymen carried a spear (*hasta*) and the cavalry version of the small, round shield (*parma equestris*). However, it appears that in the late 2nd century BC, some cavalrymen carried long lances (*contus*), which would be held in both hands, precluding a shield.^[68]

Tactics

Roman cavalry of the Republican period specialised in the shock charge, followed by close melee combat.^[69] There is a persistent view among some historians that the Romans of this period were inept at horsemanship and that their cavalry was simply a token adjunct to their far superior infantry. Indeed, some authors have even claimed that Roman cavalry preferred to fight on foot whenever possible, on the basis of a few incidents in which cavalry dismounted to assist their hard-pressed infantry colleagues.^[70] Against this, Sidnell argues that this view is misguided and that the record shows that Roman cavalry were a formidable force which won a high reputation for skill and valour in numerous battles of the 3rd century BC.^[71]

Campaign record

Examples include the Battle of Sentinum (295 BC), in which the cavalry played a crucial role in the Romans' crushing victory over an enormous combined army of Samnites and Gauls. On the left wing, the Romans twice drove back the more numerous and highly rated Gallic cavalry with spirited frontal charges, but pursued too far and became entangled in a melee with the enemy infantry. This gave the Gauls the opportunity to unleash on the Roman cavalry their chariot forces, whose unfamiliar deep rumbling noise panicked the Roman horses and resulted in a chaotic Roman flight. However, on the right, the Roman cavalry routed the Samnite infantry with a devastating charge on their flank.^[72] At Heraclea (280 BC), the Roman cavalry dismayed the enemy leader king Pyrrhus by gaining the advantage in a bitterly contested melee against his Thessalian professional cavalry, then regarded as the finest in the world, and were only driven back when Pyrrhus deployed his elephants, which panicked the Roman horses.^[73] At Telamon (225 BC), the Roman cavalry hotly contested a strategic hill on the flank of the battlefield with more numerous Gallic cavalry. In what developed as a separate cavalry battle before the main infantry engagement began, the Gauls were eventually driven off the hill by repeated Roman charges, enabling the Roman horse to launch a decisive flank attack on the Gallic foot.^[74] On the eve of the Second Punic War, therefore, Roman cavalry was a prestigious and much feared force.^[75]

A key reason for some historians' disparagement of the Roman cavalry were the crushing defeats, at the Trebia and at Cannae, that it suffered at the hands of the Carthaginian general Hannibal during the latter's invasion of Italy (218-6 BC). But Sidnell points out these reverses were not due to poor performance by the Romans, who fought with their customary courage and tenacity, but to the Hannibalic cavalry's far superior numbers and the operational flexibility afforded by his Numidian light cavalry.^[76] Hannibal's already powerful cavalry (6,000 men) that he brought over the Alps, consisting of Spanish cavalry and Numidian light, was swollen by the adherence of most of the Gallic tribes of northern Italy, who provided an additional 4,000, bringing his horse up to 20% of his total force.^[77] At Cannae, 6,000 Roman horse (including Italian confederates) faced 10,000 Carthaginians, and on the Roman right wing, the Roman cavalry of 2,400 was probably outnumbered by more than 2 to 1 by Hannibal's Spaniards and Gauls. It is on this wing that the Roman disaster at Cannae was determined, as the Roman cavalry were overwhelmed and broken. In the words of Polybius: "As soon as the Spanish and Celtic horse on the (Carthaginian) left wing came into contact with the Roman cavalry... the fighting which developed was truly barbaric... Once the two forces had met they dismounted and fought on foot, man to man. Here the Carthaginians finally prevailed, and although the Romans resisted with desperate courage, most of them were killed..."^[78] The fact that the Romans dismounted has been used to support the thesis of a Roman cavalry that lacked confidence in its horsemanship and was in reality just a mounted infantry. But since the Carthaginian cavalry also dismounted, Livy's explanation is more credible, that fighting on horseback was impractical in the confined space between the right flank of the Roman infantry and the river Aufidus.^[79]

One reason for Hannibal's cavalry superiority was greater numbers. Whereas the Roman/Italian cavalry constituted about 12% of a confederate army, Carthaginian and Gallic cavalry were around 20% of their respective forces. It also became evident to the Romans that their exclusive reliance on heavy shock cavalry was insufficiently flexible. In addition to superior numbers, Hannibal's cavalry superiority was primarily based on his formidable light Numidian horse. Numidians rode their small but tough horses bareback, without bridles and unarmoured. They were armed

simply with a few javelins and a light leather shield.^[80] They were exceptionally fast and manoeuvrable, ideal for scouting, skirmishing, harassment, ambushing and pursuit. Their standard tactic was to repeatedly approach the enemy, throw their javelins and then hastily scatter before the enemy could engage them. To this, the Romans, used to the charge followed by close melee combat, had no effective response.^[81] Nevertheless, in the years following Cannae (216-203 BC), the record of Roman cavalry in operations against Hannibal in southern Italy was creditable, scoring a number of successes in cavalry encounters although never depriving the enemy of overall cavalry superiority.^[82] The Romans finally succeeded in closing the light cavalry gap with the Carthaginians by winning over the Numidian king Massinissa, previously an ally of Carthage. This enabled the Romans to field at least an equal number of Numidians at the battle of Zama (202 BC), who, outnumbering the Roman/Italian cavalry by 2 to 1, played a vital role in neutralising their compatriots fighting for Hannibal. Even so, it was the Roman cavalry that decided the issue, charging and routing the Carthaginians facing them, then wheeling to attack the Punic infantry in the rear.^[83]

Native allied cavalry

The cavalry of Roman armies before the 2nd Punic War had been exclusively Roman and confederate Italian, with each holding one wing of the battleline (the Romans usually holding the right wing). After that war, Roman/Italian cavalry was always complemented by allied native cavalry (especially Numidian), and was usually combined on just one wing. Indeed, the allied cavalry often outnumbered the combined Roman/Italian force e.g. at Zama, where the 4,000 Numidians held the right, with just 1,500 Romans/Italians on the left.^[84] One reason was the lessons learnt in the war, namely the need to complement heavy cavalry with plenty of light, faster horse, as well as increasing the cavalry share when engaging with enemies with more powerful mounted forces. It was also inevitable that, as the Roman Republic acquired an overseas empire and the Roman army now campaigned entirely outside Italy, the best of non-Italian cavalry would be enlisted in increasing numbers, including (in addition to Numidians) Gallic, Spanish and Thracian heavy cavalry.^[85]

Nevertheless, Roman and Italian confederate cavalry continued to form an essential part of a Roman army's line-up for over a century. They were especially effective in wars in the East, where they encountered Hellenistic Macedonian and Seleucid cavalry which fought in set-piece battles using equipment and tactics similar to the Romans' own. For example, at Magnesia (190 BC), 3,000 Roman cavalry on the right wing routed 7,000 facing Syrian and Greek cavalry (including 3,000 cataphracts - Parthian-style heavily armoured cavalry) then wheeled and assisted the legions in breaking the Seleucid phalanx by attacking it in the flank and rear.^[86] As earlier in the war against Hannibal, Roman cavalry was far less effective against elusive tribal light cavalry such as the Lusitanians under Viriathus in their bitter resistance to Roman rule (151-140 BC) and the Numidians themselves under king Jugurtha during the latter's rebellion (112-105 BC). During these conflicts, the Romans were obliged to rely heavily on their own Numidian allied horse.^[87]

Marching-order and camps

It is during this period of the Republic that emerged a central feature of Roman military practice, which was adhered to until at least ca. AD 400 if not beyond: the fortified marching-camp (*castra*), whose earliest detailed description is in Polybius.^{[88][89]} One Roman author claims that the Romans copied the design of their camps from those of king Pyrrhus.^[90] But this seems unlikely, as Polybius himself criticises his fellow-Greeks for not constructing fortified camps.^[91]

Roman troops would construct a fortified camp, with a standardised size and layout, at the end of each day's march.^[92] Most of their adversaries would rely on camping on defensible features (such as hilltops) or in places of concealment (such as in forests or swamps).^[91] Although this practice spared troops the toil of constructing fortifications, it would frequently result in camps often being situated on unsuitable ground (i.e. uneven, waterlogged or rocky) and vulnerable to surprise attack, if the enemy succeeded in scouting its location.^{[91][93]}

The advantages of fortified marching-camps were substantial. Camps could be situated on the most suitable ground: i.e. preferably level, dry, clear of trees and rocks, and close to sources of drinkable water, forageable crops and good grazing for horses and pack-animals.^[89] Properly patrolled, fortified camps made surprise attacks impossible and successful attacks rare - in fact, no case is recorded in the ancient literature of a Roman marching-camp being successfully stormed.^[94] The security afforded by fortified camps permitted soldiers to sleep soundly, while animals, baggage and supplies were safely corralled within its precinct.^[95] If the army engaged an enemy near a marching-camp, a small garrison of a few hundred men would suffice to defend the camp and its contents. In case of defeat, fleeing soldiers could take refuge in their marching-camp.^[89] After their disaster on the battlefield of Cannae (216 BC), some 17,000 Roman troops (out of a total deployment of over 80,000) escaped death or capture by fleeing to the two marching-camps that the army had established nearby, according to Livy.^[96]

The process of establishing a marching-camp would start when the Consul in command of a consular army determined the general area where the day's march would terminate. A detail of officers (a military tribune and several centurions), known as the *mensores* ("measurers"), would be charged with surveying the area and determining the best location for the *praetorium* (the Consul's tent), planting a standard on the spot.^[97] Measured from this spot, a square perimeter would be marked out, each side at 100 Roman feet (about 30m) from the praetorium, enclosing an area of 4 Greek *plethra* (about 3,600 sq m).^[98] Along the perimeter, a ditch (*fossa*) would be excavated, and the spoil used to build an earthen rampart (*agger*) on the inside of the ditch. On top of the rampart was erected a palisade (*vallum*) of cross-hatched wooden stakes with sharpened points.^[31] Within this precinct, a standard, elaborate plan was used to allocate space, in a pre-set pattern, for the tents of each of the various components of the army: officers, legionary infantry (split into *hastati*, *principes* and *triarii*) and legionary cavalry, Italian allied infantry and cavalry, *extraordinarii* and non-Italian allies.^[99] The idea was that the men of each manipulus would know exactly in which section of the camp to pitch its tents and corral its animals.^[100] The construction of a marching-camp would take a consular army just a couple of hours, since most soldiers would participate and were equipped with picks and shovels for the purpose.^[89] Where both consular armies were marching together, a twin-camp was established, back-to-back, so that the overall shape was rectangular.^[100]

Social impact of military service

During the Samnite Wars, the military burden on the core social group was very onerous. The standard levy was raised from 2 to 4 legions and military operations took place every single year. This implies that c. 16% of all Roman adult males spent every campaigning season under arms in this period, rising to 25% during emergencies.^[101] But even this pales into insignificance compared to the demands on Roman manpower of the Second Punic War. Polybius estimates Roman citizen *iuniores* (excluding the Italian allies) at about 231,000 in 225 BC, on the eve of the war. Of these, some 50,000 perished in the great defeats of 218-6 BC. Of the remaining 180,000, the Romans kept at least 100,000 in the field, in Italy and overseas, continuously in the period 214-203 (and 120,000 in the peak year).^[66] In addition, about 15,000 were serving in the Roman fleets at the same time.^[102] Thus, if one assumes that fresh recruits reaching military age were cancelled out by campaign losses, fully *two-thirds* of Roman *iuniores* were under arms continuously during the war. This barely left enough to tend the fields and produce the food supply. Even then, emergency measures were often needed to find enough recruits. Livy implies that, after Cannae, the minimum property qualification for legionary service was largely ignored. In addition, the normal ban on criminals, debtors and slaves serving in the legions was lifted. Twice the wealthy class were forced to contribute their slaves to man the fleets and twice boys under military age were enlisted.^[103]

The century following the Second Punic War saw Rome's acquisition of an overseas empire, including major possessions in Africa, Spain, Illyricum and Greece. The republic's army, however, retained much the same structure as before, a citizen-levy alongside conscripts provided by the *socii*. The *socii* appear to have played their role in the new paradigm uncomplainingly, despite the fact that the confederation, previously an alliance primarily designed for mutual defence, was now engaged mostly in aggressive expansion overseas. *Socii* acquiescence was mainly bought

by the generous share of booty that overseas campaigns brought to each *socius* soldier. In addition, the *socii* were becoming increasingly integrated with the Romans. Shared service in an army whose operational language was Latin resulted in the latter becoming the *lingua franca* of the peninsula, gradually eclipsing its other native languages. In the Roman provinces outside Italy, foreigners made no distinction between Romans and Italians and referred to both simply as "Romans". In Italy, ever more *socii* voluntarily adopted Roman systems of government, laws and coinage.

But, underneath the surface, resentment was steadily building among the Italian allies about their second-class status in the Roman system. In particular, not holding Roman citizenship, they were unable to benefit from the large-scale redistribution of Roman common land (*ager publicus*), from large landowners to smallholders, carried out by the Gracchi brothers starting in 133 BC. The agrarian reforms sparked a massive movement among the *socii* to demand full citizenship. But it appears from the fragmentary evidence that the conservative majority in the Roman Senate succeeded, by both fair means and foul (such as assassinating reform leaders), in blocking any significant expansion of citizenship among the *socii* in the period following the agrarian law of 133 BC.

In 91 BC, the *socii* rebelled *en masse* against the Roman alliance system, sparking the so-called "Social War" (91-88 BC), probably the toughest challenge faced by Rome since the Second Punic War over a century earlier. The Romans ultimately prevailed, not only by military action but by conceding the very demands that had set off the revolt in the first place. In 89 BC, *socii* which had remained loyal were granted full Roman citizenship, and that privilege was extended to all inhabitants of the Italian peninsula shortly after the end of the war. This entailed the demise of the old allied *alae*, as the former *socii*, now citizens, were now recruited into the legions. The "Polybian" army gave way to the Caesarian Roman army.

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Imperial Roman army

Imperial Roman Army	
	
Roman infantry helmet (Imperial Gallic type). Late 1st century	
Active	30 BC - 284 AD
Country	Roman Empire
Branch	Army
Size	450,000 at peak in 211 AD
Unit types	Roman legions, Auxilia, Pretorian Guard
Disbanded	Became the late Roman army

The **Imperial Roman army** refers to the armed forces deployed by the Roman Empire during the Principate era (30 BC – AD 284).

Under the founder–emperor Augustus (ruled 30 BC – AD 14), the legions, which were formations numbering about 5,000 heavy infantry recruited from Roman citizens only, were transformed from a mixed conscript and volunteer corps serving an average of 10 years, to all-volunteer units of long-term professionals serving a standard 25-year term. (Conscription was only decreed in emergencies.) In the later 1st century, the size of a legion's First Cohort was doubled, increasing the strength of a legion to about 5,500.

To complement the legions, Augustus established the auxilia, a regular corps of similar numbers to the legions, recruited from the *peregrini* or non-citizen inhabitants of the empire, who constituted about 90% of the Empire's population in the 1st century. In addition to large numbers of heavy infantry equipped in a similar manner to legionaries, the auxilia provided virtually all the army's cavalry, light infantry, archers and other specialists. The auxilia were organised in units about 500 strong. These units were termed *cohortes* if they consisted of infantry, *alae* if they consisted of cavalry and *cohortes equitatae* if they were composed of infantry with a cavalry contingent attached.

Until about AD 68, the auxilia were recruited by a mix of conscription and voluntary enlistment. After that time, the auxilia became largely a volunteer corps, with conscription resorted to only in emergencies. Auxiliaries were required to serve a minimum of 25 years, although many served for longer periods. On completion of their minimum term, auxiliaries were awarded Roman citizenship, which carried important legal, fiscal and social advantages. Around AD 80, a minority of auxiliary regiments were doubled in size.

Alongside the regular forces, the army of the Principate employed allied native units (called *numeri*) from outside the Empire on a mercenary basis. These were led by their own aristocrats and equipped in traditional fashion. Numbers fluctuated according to circumstances and are largely unknown.

As all-citizen formations, and symbolic protectors of the dominance of the Italian "master-nation", legions enjoyed greater social prestige than the auxilia for much of the Principate. This was reflected in better pay and benefits. In

addition, legionaries were equipped with more expensive and protective armour than auxiliaries, notably the *lorica segmentata*, or laminated-strip armour. However, in 212, the Emperor Caracalla granted Roman citizenship to nearly all the Empire's freeborn inhabitants. At this point, the distinction between legions and auxilia became moot, the latter becoming all-citizen units also. The change was reflected in the disappearance, during the 3rd century, of legionaries' special equipment, and the progressive break-up of legions into cohort-sized units like the auxilia.

By the end of Augustus' reign, the imperial army numbered some 250,000 men, equally split between 25 legions and 250 units of auxiliaries. The numbers grew to a peak of about 450,000 by 211, in 33 legions and about 400 auxiliary units. By then, auxiliaries outnumbered legionaries substantially. From this peak, numbers probably underwent a steep decline by 270 due to plague and losses during multiple major barbarian invasions. Numbers were restored to their early 2nd-century level of ca. 400,000 (but probably not to their 211 peak) under Diocletian (r. 284-305). After the Empire's borders became settled (on the Rhine-Danube line in Europe) by AD 68, virtually all military units (except the Praetorian Guard) were stationed on or near the borders, in roughly 17 of the 42 provinces of the empire in the reign of Hadrian (r. 117–138).

The military chain of command was relatively flat. In each province, the deployed legions' *legati* (legion commanders, who also controlled the auxiliary units attached to their legion) reported to the *legatus Augusti pro praetore* (provincial governor), who also headed the civil administration. The governor in turn reported directly to the Emperor in Rome. There was no general staff in Rome, but the leading *praefectus praetorio* (commander of the Praetorian Guard) often acted as the Emperor's *de facto* military chief-of-staff.

Compared to the subsistence-level peasant families from which they mostly originated, legionary rankers enjoyed considerable disposable income, enhanced by periodical cash bonuses on special occasions such as the accession of a new emperor. In addition, on completion of their term of service, they were given a generous discharge bonus equivalent to 13 years' salary. Auxiliaries were paid much less in the early 1st century, but by 100 AD, the differential had virtually disappeared. Similarly, in the earlier period, auxiliaries appear not to have received cash and discharge bonuses, but probably did so from the reign of Hadrian onwards. Junior officers (*principales*), the equivalent of non-commissioned officers in modern armies, could expect to earn up to twice basic pay. Legionary centurions, the equivalent of senior warrant officers, were organised in an elaborate hierarchy. Usually promoted from the ranks, they commanded the legion's tactical sub-units of *centuriae* (about 80 men) and cohorts (about 480 men). They were paid several multiples of basic pay. The most senior centurion, the *primus pilus*, was automatically elevated to equestrian rank on completion of his single-year term of office. The senior officers of the army, the *legati legionis* (legion commanders), *tribuni militum* (legion staff officers) and the *praefecti* (commanders of auxiliary regiments) were all of at least equestrian rank. In the 1st and early 2nd centuries, they were mainly Italian aristocrats performing the military component of their *cursus honorum* (conventional career-path). Later, provincial career officers became predominant. Senior officers were paid enormous salaries, multiples of at least 50 times a soldier's basic pay.

Soldiers spent only a fraction of their lives on campaign. Most of their time was spent on routine military duties such as training, patrolling, and maintenance of equipment etc. Soldiers also played an important role outside the military sphere. They performed the function of a provincial governor's police force. As a large, disciplined and skilled force of fit men, they played a crucial role in the construction of a province's military and civil infrastructure. In addition to constructing forts and fortified defences such as Hadrian's Wall, they built roads, bridges, ports, public buildings and entire new cities (*colonia*), and cleared forests and drained marshes to expand a province's available arable land.

Soldiers, mostly drawn from polytheistic societies, enjoyed wide freedom of worship in the polytheistic Roman system. They revered equally their own native deities, Roman deities and the local deities of the provinces in which they served. Only a few cults were banned by the Roman authorities, as being incompatible with the official Roman religion or being politically subversive, notably Druidism and Christianity. The later Principate saw the rise in popularity among the military of Eastern mystery cults, generally centred on one deity, and involving secret rituals divulged only to initiates. By far the most popular cult in the army was Mithraism, an apparently syncretist cult

which mainly originated in Asia Minor.

Sources

Except for the early 1st century, the literary evidence for the Principate period is surprisingly thin, due to the loss of a large number of contemporary historical works. From the point of view of the imperial army, the most useful works are those by the Roman historian Tacitus, writing around AD 100. These are the *Annales*, a chronicle of the Julio-Claudian era from the death of the founder-emperor Augustus to that of Nero (AD 14-68). Even this suffers from large gaps, amounting to about a third of the original; the *Historiae* was the sequel to the *Annales*, bringing the chronicle up to the death of Domitian (AD 96), of which only the first part, a detailed account of the Civil War of 68-9 survives; and the *Agricola*, a biography of Tacitus' own father-in-law, Gnaeus Julius Agricola, who as governor of Britain (AD 78-85) attempted to subjugate Caledonia (Scotland) to Roman rule. The second important literary source is *De Re Militari*, a treatise on Roman military practices by Vegetius, written ca. 400. This contains much useful material relating to the Principate period, but the author's statements are undated and sometimes unreliable. Also useful are; *The Jewish War* by Josephus, an eyewitness account of the First Jewish revolt of AD 66-70 by one of the Jewish commanders who defected to the Romans after he was captured; the essay *Acies contra Alanos* (*Ektaxis kata Alanon*) by the Greek author Arrian, who was imperial governor of Cappadocia in AD 135-8: this describes a campaign led by the author to repel an invasion of his province by the Alans, an Iranic people of the Caucasus region. But most Roman historians present only a very limited picture of the imperial army's affairs, as they describe only military campaigns and say little about the army's organisation, logistics and the daily lives of the troops. Fortunately, the thin and fragmentary literary evidence has been complemented by a vast mass of inscription and archaeological evidence.

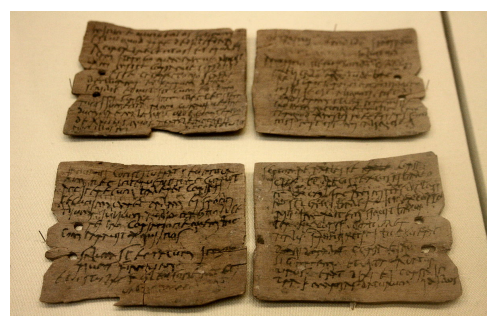
The imperial army was a highly bureaucratised institution. Meticulous financial records were kept by units' *cornicularii* (book-keepers). Detailed records were kept on all individual soldiers and there is evidence of filing systems.^[1] Even minor matters such as soldiers' requests to their *praefectus* for leave (*commeatus*) had to be submitted in writing.^[2] From the evidence discovered at Vindolanda, a fort near Hadrian's Wall, it can be deduced that the Roman garrison in the province of Britain alone generated tens of millions of documents.^[3] However, only an infinitesimal fraction of this vast documentation has survived, due



Section of Trajan's Column, Rome, showing the spiral friezes that represent the best surviving evidence of the equipment of imperial Roman soldiers



Surviving fragment of a Roman military diploma found at Carnuntum in the province of Noricum (Austria)



Specimen Vindolanda tablets

to organic decomposition of the writing-medium (wooden and wax-tablets and papyrus). The only region of the empire where the army's documentation has survived in significant quantities is Egypt, where exceptionally dry conditions have prevented decomposition. Egyptian papyri are thus a crucial source for the army's internal organisation and life. The Vindolanda tablets, documents inscribed on wooden tablets and preserved by unusual anoxic conditions, are a rare corpus of army documents from the north-western part of the Empire. They consist of a series of letters and memoranda between officers of three auxiliary regiments stationed in succession at Vindolanda AD 85–122. They provide a valuable glimpse of the real lives and activities of the garrison of an auxiliary fort.^[4]

A large corpus of inscription evidence has been preserved on inorganic materials such as metal or stone. Of outstanding importance among stone monuments are the bas-reliefs on Trajan's Column in Rome. Erected in 112 to celebrate the Emperor Trajan's successful conquest of Dacia (101-7), the reliefs provide the most comprehensive and detailed portrayal of Roman military equipment extant. Another major source on stone is the extensive corpus of recovered tombstones of Roman soldiers. These often carry reliefs showing the subject in full combat dress plus inscriptions containing a summary of his career (age, units served, ranks held).

Notable metal documents are Roman military diplomas. A diploma was a bronze tablet issued to an auxiliary soldier on completion of his 25-year term of service to prove the award of Roman citizenship to the holder and his family. A particular advantage of diplomas for historians is that they are dated. Diplomas also normally list the names of several auxiliary units which served in the same province at the same time, critical data on the deployment of auxiliary units in the various provinces of the Empire at different times. Also usually recorded are: beneficiary's regiment, regimental commander's name, beneficiary's military rank, name of beneficiary, name of beneficiary's father and origin (nation, tribe or city); name of beneficiary's wife and name of her father and origin; and names of children granted citizenship. Over 800 diplomas have been recovered, although most in a fragmentary state. Stone inscriptions relating to the army are mostly on soldiers' tombstones and dedications of altars. Such inscriptions yield important information on the origins and career-paths and religious beliefs of soldiers of all ranks, although officers predominate due to the expense of the memorials.

Finally, a mass of information has been uncovered by archaeological excavation of imperial military sites: legionary fortresses, auxiliary forts, marching-camps and other facilities such as signal-stations. A good example is Vindolanda fort itself, where excavations began in the 1930s and continue to this day. Such excavations have uncovered details of the lay-out and facilities of military sites and remains of military equipment.

Background: the Caesarian Roman army

The army of the late Republic that Augustus took over on becoming sole ruler of the Empire in 30 BC consisted of a number of large (5,000-strong) formations called legions, which were composed exclusively of heavy infantry. The legion's light infantry (*velites*) which had been deployed in earlier times (see Roman army of the mid-Republic), had been phased out as had its contingent of cavalry. Legions were recruited from Roman citizens only (i.e.: from Italians and inhabitants of Roman colonies outside Italy), by regular conscription, although by 88 BC, a substantial proportion of recruits were volunteers.

To remedy the deficiencies in capability of the legions (heavy and light cavalry, light infantry, archers and other specialists), the Romans relied on a motley array of irregular units of allied troops, both composed of subject natives of the empire's provinces (called the *peregrini* by the Romans) and of bands supplied, often on a mercenary basis, by Rome's allied kings beyond the Empire's borders. Led by their own aristocrats and equipped in their own traditional fashion, these native units varied widely in size, quality and reliability. Most would only be available for particular campaigns before returning home or disbanding.

Foundation of the imperial army under Augustus (30 BC - AD 14)

On gaining undisputed mastery over the Roman empire in 30 BC, Augustus (sole rule 30 BC - AD 14) was left with an army which was bloated by extraordinary recruitment for the Roman civil wars and at the same lacking a suitable organisation for the defence and expansion of a vast empire. Even after disbanding most of his defeated adversary Mark Anthony's legions, Augustus had 50 legions under his command, composed exclusively of Roman citizens i.e. by that time, of Italians and inhabitants of Roman colonies outside Italy. Alongside these were a mass of irregular non-Italian allied units whose command, size and equipment varied greatly. Some allied units came from provinces within the empire, others from beyond the imperial borders.

Legions

The first priority was to reduce the number of legions to a sustainable level. 50 legions implied too high a recruitment burden for a male citizen-body only about 2 million strong, especially as Augustus intended to create a long-term career force. The Emperor retained just over half his legions (28), disbanding the rest and settling their veterans in no less than 28 new Roman colonies.^[5] The number of legions remained close to that level throughout the Principate (varying between 25 and 33 in number).^[6]

Unlike the Republican legions, which were, in theory at least, temporary citizen-levies for the duration of particular wars, Augustus and his right-hand man Agrippa clearly envisioned their legions as permanent units composed of career professionals. Under the late Republic, a Roman citizen *iunior* (i.e. male of military age: 16–46 years) could legally be required to serve a maximum of 16 years in the legions and a maximum of 6 years consecutively. The average number of years served was about 10. In 13 BC, Augustus decreed 16 years as the *standard* term of service for legionary recruits, with a further 4 years as reservists (*evocati*). In AD 5, the standard term was increased to 20 years plus 5 years in the reserves.^[7] In the period following its introduction, the new term was deeply unpopular with the troops. On Augustus' death in AD 14, the legions stationed on the river Rhine staged a major mutiny, and among other things, demanded a reversion to a 16-year term.^[8] Augustus prohibited serving legionaries from marrying, a decree that remained in force for 2 centuries.^[9] This measure was probably prudent in the early imperial period, when most legionaries were from Italy or the Roman colonies on the Mediterranean, and were required to serve long years far from home. This could lead to disaffection if they left families behind. But from about AD 100 onwards, when most legions were based long-term in the same frontier-province and recruitment was primarily local, the prohibition of marriage became a legal encumbrance that was largely ignored. Many legionaries formed stable relationships and brought up families. Their sons, although illegitimate in Roman law and thus unable to inherit their fathers' citizenship, were nevertheless frequently admitted to legions.

At the same time, the traditional grant of land to retiring veterans was made replaceable by a cash discharge bonus, as there was no longer sufficient state-owned land (*ager publicus*) in Italy to distribute. Unlike the Republic, which had relied primarily on conscription (i.e. compulsory levy), Augustus and Agrippa preferred volunteers for their professional legions.^[10] Given the onerous new term of service, it was necessary to offer a substantial bonus to attract sufficient citizen-recruits. In AD 5, the discharge bonus was set at 3,000 *denarii*.^[11] This was a generous sum equivalent to about 13 years' gross salary for a legionary of the time. To finance this major outlay, Augustus decreed



Statue of the founder-emperor Augustus in garb of military commander-in-chief

a 5% tax on inheritances and 1% on auction-sales, to be paid into a dedicated *aerarium militare* (military treasury).^[12] However, veterans continued to be offered land instead of cash in Roman colonies established in the newly annexed frontier provinces, where public land was plentiful (as a result of confiscations from defeated indigenous tribes).^[13] This was another grievance behind the mutinies of 14 AD, as it effectively forced Italian veterans to settle far from their own country (or lose their bonus).^[14] The imperial authorities could not compromise on this issue, as the planting of colonies of Roman veterans was a crucial mechanism for controlling and Romanising a new province, and the foundation of veterans' colonies did not cease until the end of Trajan's rule (117).^{[13][15]} But as legionary recruitment became more localised (by AD 60, over half of recruits were not Italian-born), the issue became less relevant.^[16]

Augustus modified the command structure of the legion to reflect its new permanent, professional nature. In Republican tradition (but ever less in practice), each legion was under 6 equestrian military tribunes who took turns to command it pairs. But in the late Republic, military tribunes were eclipsed by higher-ranking officers of senatorial rank called *legati* ("literally "envoys"). A proconsul (Republican governor) might ask the senate to appoint a number of *legati* to serve under him e.g. Julius Caesar, Augustus' grand-uncle and adoptive father, had 5, and later 10, *legati* attached to his staff when he was governor of Cisalpine Gaul (58-51 BC). These commanded detachments of one or more legions at the governor's behest and played a critical role in the conquest of Gaul. But legions still lacked a single, permanent commander.^[17] This was provided by Augustus, who appointed a *legatus* to command each legion with a term of office of several years. The ranking senatorial military tribune (*tribunus militum latyclavius*) was designated deputy commander, while the remaining 5 equestrian tribunes served as the *legatus*' staff officers. In addition, Augustus established a new post of *praefectus castrorum* (literally "prefect of the camp"), to be filled by a Roman knight (often an outgoing *centurio primus pilus*, a legion's chief centurion, who was usually elevated to equestrian rank on completion of his single-year term of office).^[12] Technically, this officer ranked below the senatorial tribune, but his long operational experience made him the legion commander's *de facto* executive officer.^[18] The prefect's primary role was as the legion's quartermaster, in charge of legionary camps and supplies.

It has been suggested that Augustus was responsible for establishing the tiny cavalry contingent of 120 horse attached to each legion.^[19] The existence of this unit is attested in Josephus' *Bellum Iudaicum* written after AD 70, and on a number of tombstones.^[20] The attribution to Augustus is based on the (unproven) assumption that legionary cavalry had completely disappeared in the Caesarian army. The Augustan era also saw the introduction of some items of more sophisticated and protective equipment for legionaries, primarily to improve their survival rate. The *lorica segmentata* (normally called simply "the *lorica*" by the Romans), was a special laminated-strip body-armour, was probably developed under Augustus. Its earliest depiction is on the Arch of Augustus at Susa (Western Alps), dating from 6 BC.^[21] The oval shield of the Republic was replaced by the convex rectangular shield (*scutum*) of the imperial era.

Auxilia

Augustus' ambitious expansion plans for the Empire (which included advancing the European border to the lines of the Elbe and Danube rivers) soon proved that 28 legions were not sufficient. Starting with the Cantabrian Wars, which aimed to annex the mineral-rich mountains of north-western Spain, Augustus' 44-year sole rule saw an almost uninterrupted series of major wars that frequently stretched the army's manpower to the limit.

Augustus retained the services of numerous units of irregular allied native troops.^[16] But there was an urgent need for extra regular troops, organised, if not yet equipped, in the same way as the legions. These could only be drawn from the Empire's vast pool of non-citizen subjects, known as *peregrini*.^[22] These outnumbered Roman citizens by around 9 to 1 in the early 1st century. The *peregrini* were now recruited into regular units of cohort-strength (ca. 500 men), to form a non-citizen corps called the *auxilia* (literally: "supports"). By AD 23, Tacitus reports that the *auxilia* numbered roughly as many as the legionaries (i.e. ca. 150,000 men).^[23] The roughly 250 regiments of *auxilia* this implies were divided into 3 types: an all-infantry *cohors* (plural: *cohortes*) (cohort) (ca. 120 regiments); an infantry

unit with a cavalry contingent attached, the *cohors equitata* (plural: *cohortes equitatae*) (80 units); and an all-cavalry *ala* (plural: *alae*, literal meaning: "wing"), of which ca. 50 were originally established.^{[24][25]}

It appears that at this early stage, auxiliary recruitment was ethnically based, with most men originating from the same tribe or province. Hence regiments carried an ethnic name e.g. *cohors V Raetorum* ("5th Cohort of Raeti"), recruited from the Raeti, a group of Alpine tribes that inhabited modern Switzerland. It has been suggested that the equipment of auxiliary regiments was not standardised until after AD 50, and that until then, auxiliaries were armed with the traditional weaponry of their tribe.^[26] But it is possible that at least some regiments had standardised equipment from Augustan times.

Auxiliary regiments were designed to operate as a complement to the legions. That is, they performed exactly the same role as the Republic's *alae* of Italian allies (*socii*) before the Social War (91-88 BC), an equal number of which always accompanied legions on campaign.

Praetorian Guard and other forces based in Rome

Praetorian Guard

Under the late Republic, a proconsul on campaign often formed a small personal guard, selected from the troops under his command, known as a *cohors praetoria* ("commander's cohort"), from *praetorium* meaning the commander's tent at the centre of a Roman marching-camp (or commander's residence in a legionary fortress). At the Battle of Actium (31 BC), Augustus had 5 such cohorts around him. After the battle, he retained them in being as a permanent brigade in and around Rome, known as the *praetoriani* ("soldiers of the imperial palace"). Inscription evidence suggests that Augustus increased the praetorian establishment to 9 cohorts, each under the command of a *tribunus militum* (military tribune).^[27] With all the legions deployed in far-off provinces under the command of powerful senators, Augustus evidently considered that he needed a least one legion-sized force with him in Rome to deter potential usurpers. Augustus stationed 3 cohorts in the City itself, each housed in separate barracks, and the rest in neighbouring cities of Latium. Originally, each cohort was independent, but in 2 BC, Augustus appointed two overall commanders (*praefecti praetorio*) of equestrian rank, one for the cohorts based in the City, the other for those outside.^[28]

The praetorians were envisaged as an elite force, whose duty was to guard the imperial palace on the Palatine hill, protect the Emperor's person and those of his family, defend the imperial government, and to accompany the emperor when he left the City on long journeys or to lead military campaigns in person. They were also to serve as ceremonial troops on state occasions. Recruits to the ranks were exclusively Italians. They were accorded much better pay and conditions than ordinary legionaries. In AD 5, the standard term of service for praetorians was set at 16 years (compared to 25 years in the legions), and praetorians' pay was set at triple that of ordinary legionaries.^[29] In order to avoid the impression of a military occupation of the capital, Augustus laid down a rule that praetorians on duty within the city boundaries must not wear armour and must keep their weapons out of sight.^[30] Those praetorians on important official duties, such as the Emperor's bodyguard-detail, wore the formal dress of Roman citizens, the toga, under which they concealed their swords and daggers.^{[31][32]} The rest wore the soldier's standard non-combat dress of tunic and cloak (*paludamentum*).^[33]

Augustus' successor Tiberius (r. 14-37), appointed only single commanders to the Guard: Sejanus 14-31, and, after ordering the latter's execution for treason, Macro. Under the influence of Sejanus, who also acted as his chief political advisor, Tiberius decided to concentrate the accommodation of all the praetorian cohorts into a single, purpose-built fortress of massive size on the outskirts of Rome, beyond the Servian Wall. Known as the *castra praetoria* ("praetorian camp"), its construction was complete by AD 23.^[34]

Urban cohorts

In addition to the praetorians, Augustus established a second armed force in Rome, the *cohortes urbanae* ("urban cohorts"), of which 3 were based in the City and one in *Lugdunum* (Lyon) in Gaul, to protect the major imperial mint there. These battalions were tasked with maintaining public order in the City, including crowd-control at major events such as chariot-races and gladiatorial combats, and the suppression of the popular unrest that periodically shook the City e.g. the riots caused by high grain prices in AD 19.^[35] Their command was given to the *praefectus urbi*, a senator who acted as Rome's "mayor". Unlike the praetorians, the urban cohorts were not deployed for military operations outside Italy.^[36]

German bodyguards

To double-insure his own personal safety and that of imperial family members, Augustus established a small personal guard called the *Germani corporis custodes* ("German bodyguard unit"). Probably of cohort-strength, these were crack horsemen recruited from native peoples on the lower Rhine, mainly from the Batavi. Their leader, probably a Batavi aristocrat, answered to the Emperor alone. The Germans shared the task of guarding the imperial palace and family with the praetorians.^[29] In AD 68, the Emperor Galba disbanded the German bodyguard unit because of their loyalty to Nero (ruled 54-68), whom he had overthrown. The decision caused deep offence to the Batavi, and contributed to the outbreak of the Revolt of the Batavi in the following year.^[37]

Historical development

Imperial expansion and *stasis*

Under Augustus, the long-term borders of the empire became largely settled. Augustus' main strategic aim was to advance the European Roman border from Dalmatia and Macedonia to the line of the Danube, both to increase strategic depth between the border and Italy and to provide a major fluvial supply route for the Roman armies in the region. To this end, Moesia (27 BC), Pannonia (AD 9), Noricum (16 BC) and Raetia (15 BC) were annexed. Augustus predecessor Julius Caesar had already established the border of Gaul along the Rhine, another major fluvial route. But Augustus initially aimed to advance that border to the Elbe, in order to pacify the many warlike Germanic tribes in between. But a massive military effort came to nothing as a result of the disastrous loss of 3 legions under Varus in AD 9, after which the expansion plans were shelved and never seriously revived (although parts of trans-Rhenine Germany such as the *Agri Decumates* and the Main valley were later occupied by the Romans in various periods). The Rhine-Danube line became the permanent border of the Roman Empire in Europe. The only major efforts to advance beyond it were Trajan's annexation of Dacia (101-6), but this was motivated not so much by the desire to expand the empire as to eliminate a dangerous rival in the form of Decebal's Dacian state and to seize control of Dacia's mineral resources (Dacia was eventually abandoned in 275); and the Emperor Marcus Aurelius' reported aim to annex "Sarmatia" (i.e. the Hungarian plain beyond the Danube) and "Marcomannia" (Bohemia) as a result of the Marcomannic Wars (166-80) - but these plans were abandoned by Aurelius' son Commodus (180-92). In the East, despite occasional wars against the Parthian Empire over buffer-states such as Armenia, the long-term border was settled along the upper Euphrates river and the Syrian desert. In North Africa, the Sahara desert provided a natural confine.

As the borders became settled, the Roman army gradually transformed from an army of conquest to one of strategic defence, with long-term, fortified bases along the major river supply routes for the legions, supported by permanent stone forts for the auxiliary regiments.

1st century

The dual-structure configuration of legions/auxilia established by Augustus remained essentially intact until the late 3rd century, with only minor modifications made during that long period. The senior officers of the army were, until the 3rd century, mainly from the Italian aristocracy. This was divided into two orders, the senatorial order (*ordo senatorius*), consisting of the ca. 600 sitting members of the Roman Senate (plus their sons and grandsons), and the more numerous (several thousand-strong) *equites equo publico* or "knights granted a public horse" i.e. knights hereditary or appointed by the Emperor. Hereditary senators and knights combined military service with civilian posts, a career-path known as the *cursus honorum*, typically starting with a period of junior administrative posts in Rome, followed by 5 to 10 years in the military and a final period of senior positions in either the provinces or at Rome.^[38] This tiny, tightly knit ruling oligarchy of under 10,000 men monopolised political, military and economic power in an empire of ca. 60 million inhabitants and achieved a remarkable degree of political stability. During the first 200 years of its existence (30 BC – AD 180), the empire suffered only one major episode of civil strife (the Civil War of 68–9). Otherwise, attempts at usurpation by provincial governors were few and swiftly suppressed.

Under the emperor Claudius (ruled 41-54), a minimum term of 25 years' service was established for auxiliary service (although many served for longer). On completion of the term, auxiliary soldiers, and their children, were from this time routinely granted Roman citizenship as a reward for service.^[39] (This is deduced from the fact that the first known Roman military diplomas date from the time of Claudius. This was a folding bronze tablet engraved with the details of the soldier's service record, which he could use to prove his citizenship).^[40]

Claudius also decreed that prefects of auxiliary regiments must all be of knightly rank, thus excluding serving centurions from such commands.^[39] The fact that auxiliary commanders were now all of the same social rank as all but one of a legion's military tribunes, probably indicates that auxilia now enjoyed greater prestige. Indigenous chiefs continued to command some auxiliary regiments, and were normally granted the rank of Roman knight for the purpose.

It is also likely that auxiliary pay was standardised at this time, but pay scales during the Julio-Claudian period are uncertain.^[39] Estimates range from 33-50% of legionary pay, well below the 75-80% in force in the time of the emperor Domitian (ruled 81-96).

Auxiliary uniform, armour, weapons and equipment were probably standardised by the end of the Julio-Claudian period (AD 68). Auxiliary equipment was broadly similar to that of the legions. By AD 68, there was little difference between most auxiliary infantry and their legionary counterparts in equipment, training and fighting capability.

After about AD 80, the *centuriae* of the First Cohort of each legion were doubled in size to 160 men, but the number of *centuriae* apparently reduced to 5, thus reducing the legion's centurions from 60 to 59. The legion's effectives were thus increased to ca. 5,240 men plus officers. In the same period, some auxiliary regiments, both *alae* and *cohortes*, were also doubled to so-called *milliaria* size (literally "1,000-strong", actually only 720 in milliary *alae* and 800 in *cohortes*). But only a minority of auxiliary regiments, about 1 in 7, were so enlarged.

2nd century

During the 2nd century some units with the new names *numerus* ("group") and *vexillatio* ("detachment") appear in the diploma record.^[41] Their size is uncertain, but was likely smaller than the regular *alae* and *cohortes*, as originally they were probably detachments from the latter, acquiring independent status after long-term separation. As these units are mentioned in diplomas, they were presumably part of the regular auxiliary organisation.^[42] But *numeri* was also a generic term used for barbarian units outside the regular auxilia. (see section 2.4 Irregular units, below).

3rd century

The traditional alternation between senior civilian and military posts fell into disuse in the late 2nd and 3rd centuries, as the Italian hereditary aristocracy was progressively replaced in the senior echelons of the army by the *primipilares* (former chief centurions).^[43] In the 3rd century, only 10% of auxiliary prefects whose origins are known were Italian equestrians, compared to the majority in the previous two centuries.^[44] At the same time, equestrians increasingly replaced the senatorial order in the top commands. Septimius Severus (ruled 197–211) placed equestrian *primipilares* in command of the three new legions he raised and Gallienus (260–68) did the same for all the other legions, giving them the title *praefectus pro legato* ("prefect acting as legate").^{[45][46]} The rise of the *primipilares* may have provided the army with more professional leadership, but it increased military rebellions by ambitious generals. The 3rd century saw numerous *coups d'état* and civil wars. Few 3rd-century emperors enjoyed long reigns or died of natural causes.^[47]

Emperors responded to the increased insecurity with a steady build-up of the forces at their immediate disposal. These became known as the *comitatus* ("escort", from which derives the English word "committee"). To the Praetorian Guard's 10,000 men, Septimius Severus added the legion *II Parthica*. Based at Albano Laziale near Rome, it was the first legion to be stationed in Italy since Augustus. He doubled the size of the imperial escort cavalry, the *equites singulares Augusti*, to 2,000 by drawing select detachments from *alae* on the borders.^[48] His *comitatus* thus numbered some 17,000 men.^[49] The rule of Gallienus saw the appointment of a senior officer, with the title of *dux equitum* ("cavalry leader"), to command all the cavalry of the emperor's *comitatus*. This included *equites promoti* (cavalry contingents detached from the legions), plus Illyrian light cavalry (*equites Dalmatarum*) and allied barbarian cavalry (*equites foederati*).^[46] But the *dux equitum* did not command an independent "cavalry army", as was suggested by some more dated scholars. The cavalry remained integral to the mixed infantry- and cavalry-*comitatus*, with the infantry remaining the predominant element.^[49]

The seminal development for the army in the early 3rd century was the *Constitutio Antoniniana* (Antonine Decree) of 212, issued by Emperor Caracalla (ruled 211–18). This granted Roman citizenship to all free inhabitants of the empire, ending the second-class status of the *peregrini*.^[50] This had the effect of breaking down the distinction between the citizen legions and the auxiliary regiments. In the 1st and 2nd centuries, the legions were the symbol (and guarantors) of the dominance of the Italian "master nation" over its subject peoples. In the 3rd century, they were no longer socially superior to their auxiliary counterparts (although they may have retained their elite status in military terms).

In tandem, the legions' special armour and equipment (e.g. the *lorica segmentata*) was phased out during the early 3rd century.^[51] There was also a progressive reduction in the size of the legions. Legions were broken up into smaller units, as evidenced by the shrinkage and eventual abandonment of their traditional large bases, documented for example in Britain.^[52] In addition, from the 2nd century onwards, the separation of some detachments from their



Re-enactor wearing replica of the typical equipment of a foot-soldier in the northern provinces in the early 3rd century, illustrating the changes in clothing and equipment from the 1st/2nd centuries. The helmet is a Niederbieber type, with cross-pattern reinforcing ridges on the top of the bowl. The sword is a *spatha* (median blade length 900 mm), used by the cavalry only in the earlier. The soldier carries a *spiculum*, a heavy *pilum*-type javelin. Note the chain mail (*lorica hamata*) shirt and oval shield. Clothing consisted of a long-sleeved tunic, trousers and boots, replacing the short-sleeved, bare-legged tunic and sandals of the previous era

parent units became permanent in some cases, establishing new unit types, *e.g.* the *vexillatio equitum Illyricorum* based in Dacia in the early 2nd century^[53] and the *equites promoti* (legionary cavalry detached from their unit) and *numerus Hnaufridi* in Britain.^{[46][54]}

Army size and cost

The first global estimate for the size of the imperial army in the ancient sources is in the *Annales* of Tacitus. In AD 23, shortly after the end of the rule of Augustus, there were 25 legions (about 125,000 men) and "roughly the same number again of auxiliaries" in about 250 regiments.

From this base-line of ca. 250,000 effectives, the imperial army grew steadily in the 1st and 2nd centuries, almost doubling in size to ca. 450,000 by the end of the rule of Septimius Severus (AD 211). The number of legions increased to a peak of 33, and auxiliary regiments even more sharply to over 400 regiments.

In the late 3rd century, it is likely that the army suffered a sharp decline in numbers due to the so-called "Third Century Crisis" (235-70) a period of numerous civil wars, major barbarian invasions and above all, the Plague of Cyprian, an outbreak of smallpox which may have eliminated as many as a third of the army's effectives. It is possible that, by AD 270, the army was not much greater than in AD 23. Finally, the emperor Diocletian (ruled 284-305) apparently restored army numbers to the same level (390,000) as it had stood in about 130.

The likely trend in the size of the Roman army in the Principate may be summarised as follows:

ROMAN ARMY NUMBERS 24–305 AD

Army corps	Tiberius AD 24	Hadrian ca. AD 130	S. Severus AD 211	3rd c. crisis ca. AD 270	Diocletian 284–305
LEGIONS	125,000 ^[55]	155,000 ^[56]	182,000 ^[57]		
AUXILIA	125,000 ^[58]	218,000 ^[59]	250,000 ^[60]		
PRAETORIAN GUARD	~5,000 ^[61]	~10,000 ^[62]	~10,000		
Total Roman Army	255,000^[63]	383,000^[64]	442,000^[65]	290,000?^[66]	390,000^[67]

Note: Figures are based on official (not actual) unit strengths and exclude Roman Navy effectives (30-40,000 men) and barbarian *foederati* (at least 11,000).

It is estimated that the imperial fleets employed 30-40,000 personnel.^[68] Adding 10-20,000 barbarian *foederati*, the military establishment at the time of Severus numbered not far short of half a million men. The impact of the costs of this enormous standing army on the Roman economy can be measured very approximately.

ARMY COSTS AS SHARE OF ROMAN EMPIRE GDP

Date	Empire population	Empire GDP (millions of <i>denarii</i>) ^(a)	Army costs (millions of <i>denarii</i>) ^(a)	Army costs as share of GDP
AD 14	46 millions ^[69]	5,000 ^[70]	123 ^[71]	2.5%
AD 150	61 millions ^[72]	6,800 ^(b)	194 ^(c)	2.9%
AD 215	50 millions ^(d)	5,435 ^(b)	223 ^(c)	4.1%

Notes:

(a) constant AD 14 *denarii* i.e. disregarding increases in military pay to compensate for debasement of coinage

(b) assuming negligible growth in GDP per capita (normal for agricultural economy)

- (c) Duncan-Jones 14-84 costs, inflated by increase in army nos. & assuming cash-bonuses and discharge-bonus paid to auxiliaries after 84
 (d) assuming 22.5% decline in population due to Antonine Plague (AD 165-80) (midpoint of 15-30% range)^[73]

Army costs thus rose only moderately as a share of GDP between 14 and 150 AD, despite a major increase in army effectives of ca. 50%. This is because the empire's population, and therefore total GDP, also increased substantially (by ca. 35%). Thereafter, the army's share of GDP leapt by almost half, although army numbers increased only ca. 15%. This is due to the Antonine plague, which is estimated by epidemiological historians to have reduced the empire's population by 15-30%. Nevertheless, even in 215, the Romans spent a similar proportion of GDP on defence than today's global superpower, the United States of America (which spent ca. 3.5% in 2003). But the effective burden on taxpayers in an unmechanised agricultural economy with little surplus production (80% of the population depended on subsistence agriculture and a further 10% were on subsistence income), would have been relatively far heavier. Indeed, a study of imperial taxes in Egypt, by far the best-documented province, concluded that the burden was relatively severe.^[74]

Military spending swallowed up ca. 75% of total government budget, as there was little "social" spending, the main items of the latter consisting of prestige construction projects in Rome and the provinces; grain-dole and cash-handouts for Rome's proletariat; and subsidies to Italian families (similar to modern child benefit), to encourage them to produce more children. Augustus instituted this policy, with a one-off payment of 250 *denarii* per child.^[75] (Additional subsidies to poor Italian families, known as *alimenta*, were introduced by Trajan).^[76]

High command structure

Central command

Under the Augustan settlement, the Roman state formally remained a republic, with the same official name, *Senatus Populusque Romanus* (SPQR - "The Senate and People of Rome") and administered by the same magistrates (state executive officers) as before: the Consuls (2 elected each year), Praetors (4), Aediles (12), Quaestors (20), who were elected (by the Senate after AD 14) annually, and the Censors (2), who were elected every 5 years. In practice, however, political and military power was concentrated in the hands of the emperor, whose official titles were *princeps* ("First Citizen") and *Augustus*. (In conversation, the emperor was normally addressed as "Caesar" and referred to in popular speech as *imperator*, a term which originally meant "supreme commander"). The emperor's supremacy was based on his assumption of two permanent and sweeping powers: the *tribunicia potestas* ("power of the tribune (of the plebs)"), which gave him control of the legislative body, the Senate (by giving him a veto over its decrees); and the *imperium proconsulare maius* (literally: "eminent proconsular command"), which made the emperor, in effect, the commander-in-chief of the armed forces (by subordinating to his command the provincial governors, who controlled the military forces in their province).^[29] In addition, the emperor frequently had himself elected as one of the Consuls or Censors. The latter post was especially useful, as it gave him the power to appoint (or remove) members from the roll of Senators and from the Order of Knights, the two aristocratic orders of imperial Rome, which filled all senior administrative and military positions.

In the border provinces where military units were mostly stationed (i.e. 15-17 of the 42 Hadrianic provinces), the governors mostly bore the title *legatus Augusti pro praetore*, although in a few smaller provinces they were known as *procurator* or *praefectus*. The governors, who normally held office for 3 years, commanded all forces in their provinces, both legions and auxilia, as well as being the heads of the civil administration. The governors reported directly to the emperor - there were no intermediate levels of command. However, there are instances during the Principate where the governors of smaller provinces were subordinated to governors of larger neighbouring ones e.g. the *praefectus* (later *procurator*) of Judaea was normally subordinate to the *legatus Augusti* of Syria.

At Rome, there was no army general staff in the modern sense of a permanent central group of senior staff-officers who would receive and analyse military intelligence and advise on strategy. Augustus established a formal *consilium principis* ("imperial council") of magistrates and leading senators in rotation to advise him on all state matters and to

prepare draft-decrees for submission to the Senate. But the real decisions were made by a semi-formal group of senior officials and close friends, the *amici principis* ("friends of the emperor"), whose membership was chosen by himself and might vary from time to time. Under Tiberius, the *amici* superseded the formal *consilium* and became the effective governing body of the empire.^[77]

Several *amici* would have had extensive military experience, due to the traditional mixing of civilian and military posts by the Principate aristocracy. But there was no *consilium* specifically dedicated to military affairs. Commanders of the Praetorian Guard, especially if they did not share their command with a partner, might acquire a predominant influence in military decision-making and act as *de facto* military chief-of-staff e.g. Sejanus, who was sole commander of the Guard AD 14-31, most of the emperor Tiberius' rule.

The emperor and his advisors relied almost entirely on reports from the 17-odd "military" governors for their intelligence on the security situation on the imperial borders.^[78] This is because a central military intelligence agency was never established.^[79] The imperial government did develop an internal security unit called the *frumentarii*. In military jargon, this term, literally meaning "grain-collectors" (from *frumentum* = "grain"), referred to detachments of soldiers detailed to forage food supplies for their units in the field. The term came to be applied to auxiliary soldiers seconded to the staff of the *procurator Augusti*, the independent chief financial officer of a province, to assist in the collection of taxes (originally in kind as grain). Such soldiers frequently visited Rome, where they were accommodated in a dedicated building, as liaison with the administrators of the imperial treasury. At some point, probably under Hadrian (r. 117-38), a permanent military unit (*numerus*) of *frumentarii* was established. Based in Rome, it was under the command of a senior centurion, the *princeps frumentariorum*.^[80] According to Aurelius Victor, the *frumentarii* were set up "to investigate and report on potential rebellions in the provinces" (presumably by provincial governors) i.e. they performed the function of an imperial secret police (and became widely feared and detested as a result of their methods, which included assassination).^[81] Though doubtless well-informed about events in the border-provinces through their network of local agents and spies, it appears that the *frumentarii* never expanded beyond internal security to fulfil a systematic military intelligence role.^[82]

The lack of independent military intelligence, coupled with the slow speeds of communication, prevented the emperor and his *consilium* from exercising anything but the most general control over military operations in the provinces. Typically, a newly appointed governor would be given a broad strategic direction by the emperor, such as whether to attempt to annex (or abandon) territory on their province's borders or whether to make (or avoid) war with a powerful neighbour such as Parthia. For example, in Britain, the governor Gnaeus Julius Agricola appears to have been given approval for a strategy of subjugating the whole of Caledonia (Scotland) by Vespasian, only to have his gains abandoned by Domitian after AD 87, who needed reinforcements on the Danube front, which was threatened by the Sarmatians and Dacians. However, within these broad guidelines, the governor had almost complete autonomy of military decision-making.^[83]

Provincial command

In those provinces that contained military forces, the governor's immediate subordinates were the commanders (*legati legionis*) in command of the legions stationed in the province (e.g. in Britain, 3 *legati* reported to the governor). In turn, the legionary commander was reported to by the combat-unit commanders: the *centuriones pili priores* in command of the legion's cohorts and the *praefecti*, in command of the auxiliary regiments attached to the legion. The empire's high command structure was thus remarkably flat, with only 4 reporting levels between combat-unit commanders and the emperor.

An auxiliary regiment would normally, but not always, be attached to a legion for operational purposes, with the *praefectus* under the command of the *legatus legionis* (the legion's commander). The period that it was so attached could be a long one e.g. the 8 Batavi *cohortes* apparently attached to legion XIV Gemina for the 26 years from the invasion of Britain in AD 43; to the Civil War of 69.^[84] However, a legion had no standard, permanent complement of auxilia.^[85] Its attached auxiliary units were changed and varied in number according to operational requirements

at the behest of the governor of the province where the legion was based at the time or of the emperor in Rome.^[86]

Regular military units

Praetorian Guard

By AD 23, there were 9 praetorian cohorts in existence.^[87] These were probably the same size as legionary cohorts (480 men each), for a total of 4,320 effectives. Each cohort was under the command of a military tribune, normally a former chief centurion of a legion. It appears that each cohort contained some 90 cavalrymen who, like legionary cavalry were members of infantry *centuriae*, but operated in the field as 3 *turmae* of 30 men each.^[88]

The number of praetorian cohorts were increased to 12 by the time of Claudius. During the 68-9 civil war, Vitellius disbanded the existing cohorts because he did not trust their loyalty and recruited 16 new ones, all double-strength (i.e. containing 800 men each). However, Vespasian (r. 69-79) reduced the number of cohorts back to the original 9 (but still 800-strong), later increased to 10 by his son, Domitian (r. 81-96). By this time, therefore, the Guard consisted of ca. 8,000 men.^[89]

It was probably Trajan (r. 98-117) who established a separate cavalry arm of the Guard, the *equites singulares Augusti* ("personal cavalry of the emperor", or imperial horseguards). An elite troop recruited from members of the finest auxiliary *alae* (originally from Batavi *alae* only), the *singulares* were tasked with escorting the emperor on campaign. The unit was organised as a milliary *ala*, probably containing 720 horsemen.^[90] It was under the command of a military tribune, who probably reported to one of the praetorian prefects. It was the only praetorian regiment that admitted persons who were not natural-born citizens, although recruits appear to have been granted citizenship on enlistment and not on completion of 25 years' service as for other auxiliaries. The unit was housed in its own barracks on the Caelian hill, separate from the main *castra praetoria*. By the time of Hadrian (r.117-38), the *singulares* appear to have numbered 1,000 men.^[91] They were further expanded to 2,000 horse in the early 3rd century by Septimius Severus, who constructed a new, larger base for them in Rome, the *castra nova equitum singularium*.^[48] By AD 100, therefore, the Guard consisted of ca. 9,000 effectives, rising to ca. 10,000 under Severus.

Some historians have dismissed the Guard as a parade-ground army of little military value. The praetorians were certainly taunted as such by the soldiers of the Danubian legions during the civil war of 68-9.^[92] But Rankov argues that the praetorians boasted a distinguished campaign-record that shows that their training and military effectiveness was far more impressive than those of merely ceremonial troops, sufficient to justify their elite status.^[93] During the Julio-Claudian era (to 68), the praetorians saw relatively little action in the field, as emperors only rarely led their armies in person. After that date, emperors led armies, and therefore deployed the praetorians on campaign, much more frequently. The praetorians were in the thick of the Emperor Domitian's wars, firstly in Germany and then on the Dacian front, where their prefect, Cornelius Fuscus was killed in action (87). Other examples include the praetorians' prominent role in Trajan's Dacian Wars (101-6), as acknowledged on the friezes of Trajan's Column and the Adamklissi Tropaeum. Equally celebrated, on the Column of Marcus Aurelius, was the praetorians' role in the Marcomannic Wars (166-80), in which two Guard prefects lost their lives.^[94] Even their final hour was wreathed in military glory: at the Battle of the Milvian Bridge (312), the praetorians fought fiercely to prevent the army of Constantine I from crossing the river Tiber and entering Rome. Many perished fighting and others drowned with their emperor Maxentius when the makeshift pontoon-bridge they were using collapsed. Subsequently, the praetorians paid the price of supporting the losing side: they were definitively disbanded, and their fortress demolished, by Constantine.^[95]

Legions

The legion consisted almost entirely of heavy infantry i.e. infantry equipped with metal armour (helmets and cuirasses). Although it was almost unbeatable by non-Roman infantry on the battlefield, it was a large, inflexible unit that could not campaign independently due to the lack of cavalry cover and other specialist forces. It was dependent on the support of auxiliary regiments.

The legion's basic sub-unit was the *centuria* (plural: *centuriae*), which literally means "a hundred men", but in practice numbered 80 men in the Principate, equivalent in numbers to a modern company. The legion's main tactical sub-unit was the *cohors* (plural: *cohortes*, or cohort), which contained 6 *centuriae* for a total of 480 men, roughly the same size as a modern battalion. There were 10 cohorts to each legion, or 4,800 men (ca. 5,000 including the small legionary cavalry of 120 horse and officers). Thus a legion was equivalent in numbers to a modern brigade. By AD 100, however, the legion's First Cohort was divided into only 5 *centuriae*, but double-strength at 160 men each, for a total of 800 men. At this point, therefore, a legion would have numbered ca. 5,300 effectives.^[96]

In addition, each legion contained a small cavalry contingent of 120 men. Unlike auxiliary cavalry, however, they do not appear to have been organised in separate cavalry squadrons (*turmae*) as were auxiliary cavalry, but to have been divided among specific *centuriae*. Legionary cavalry probably performed a non-combat role as messengers, scouts and escorts for senior officers.^[20]

Auxilia

The following table sets out the official, or establishment, strength of auxiliary units in the 2nd century. The real strength of a unit would fluctuate continually, but would likely have been somewhat less than the establishment most of the time.

ROMAN AUXILIARY REGIMENTS: TYPE, STRUCTURE AND STRENGTH^[97]

Unit type	Service	Unit commander	Sub-unit commander	No of sub-units	Sub-unit strength	Unit strength
Ala quingenaria	cavalry	praefectus	decurio	16 <i>turmae</i>	30 (32) ¹	480 (512)
Ala milliaria	cavalry	praefectus	decurio	24 <i>turmae</i>	30 (32)	720 (768)
Cohors quingenaria	infantry	praefectus ²	centurio	6 <i>centuriae</i>	80	480
Cohors milliaria	infantry	tribunus militum ³	centurio	10 <i>centuriae</i>	80	800
Cohors equitata quingenaria	infantry plus cavalry contingent	praefectus	centurio (inf) decurio (cav)	6 <i>centuriae</i> 4 <i>turmae</i>	80 30.	600 (480 inf/120 cav)
Cohors equitata milliaria	infantry plus cavalry contingent	tribunus militum ³	centurio (inf) decurio (cav)	10 <i>centuriae</i> 8 <i>turmae</i>	80 30	1,040 (800 inf/240 cav)

Notes

(1) Opinion is divided about the size of an *ala turma*, between 30 and 32 men. A *turma* numbered 30 in the Republican cavalry and in the *cohors equitata* of the Principate auxilia. Against this is a statement by Arrian that an *ala* was 512 strong.^[98] This would make an *ala turma* 32 men strong.

(2) *tribunus militum* in original citizen *cohortes*^[99]

(3) *praefectus* in Batavi and Tungri *cohortes milliariae*^[99]

Unless the regiment name, was qualified by a specialist function e.g. *cohors sagittariorum* ("cohort of archers"), its infantry and cavalry were heavily equipped in the same way as the legionaries.

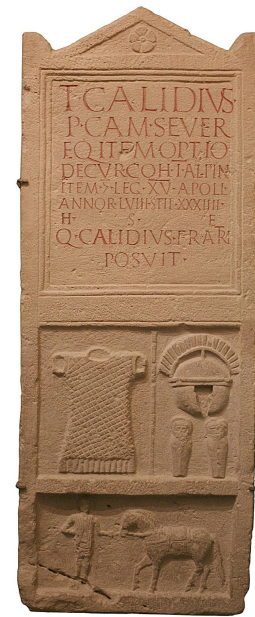
Cohors

These all-infantry units were modelled on the cohorts of the legions, with the same officers and sub-units. It is a common misconception that auxiliary *cohortes* contained light infantry: this only applies to specialist units such as archers. Their defensive equipment of regular auxiliary infantry was very similar to that of legionaries, consisting of metal helmet and metal cuirass (chain-mail or scale). There is no evidence that auxiliaries were equipped with the *lorica segmentata*, the elaborate and expensive laminated-strip body-armour that was issued to legionaries. However, legionaries often wore chain-mail and scalar cuirasses also. In addition, it appears that auxiliaries carried a round shield (*clipeus*) instead of the curved rectangular shield (*scutum*) of legionaries. As regards weapons, auxiliaries were equipped in the same way as legionaries: a javelin (although not the sophisticated *pilum* type provided to legionaries), a *gladius* (short stabbing-sword) and *pugio* (dagger).^[100] It has been estimated that the total weight of auxiliary infantry equipment was similar to that of legionaries', so that non-specialist *cohortes* may also be classified as heavy infantry, which fought in the battle-line alongside legionaries.^[85]

There is no evidence that auxiliary infantry fought in a looser order than legionaries.^[85] It appears that in a set-piece battle-line, auxiliary infantry would normally be stationed on the flanks, with legionary infantry holding the centre e.g. as in the Battle of Watling Street (AD 60), the final defeat of the rebel Britons under queen Boudicca.^[101] This was a tradition inherited from the Republic, when the precursors of auxiliary *cohortes*, the Latin *alae*, occupied the same position in the line.^[102] The flanks of the line required equal, if not greater, skill to hold as the centre.

Ala

The all-mounted *alae* contained the elite cavalry of the Roman army.^[85] They were specially trained in elaborate manoeuvres, such as those displayed to the emperor Hadrian during a documented inspection. They were best-suited for large-scale operations and battle, during which they acted as the primary cavalry escort for the legions, which had almost no cavalry of their own. They were heavily protected, with chain-mail or scale body armour, a cavalry version of the infantry helmet (with more protective features) and oval shield. Their offensive weapons included a spear (*hasta*), a cavalry sword (*spatha*), which was much longer than the infantry *gladius* to provide greater reach and a long dagger. The elite status of an *alaris* is shown by the fact that he received 20% greater pay than his counterpart in a cohort, and than a legionary infantryman.



Tombstone of Titus Calidius Severus, an auxiliary trooper who worked his way up from *eques* (common cavalryman) to *optio* of the **cohort I Alpinorum** (a mixed infantry/cavalry regiment from the western Alps). He then switched to a legion (presumably after gaining Roman citizenship after 25 of his 34 years of service) and became a centurion in the cavalry arm of **Legio XV Apollinaris**. He died at age 58, probably shortly after his discharge. Note the portrayal of his chain-mail armour, centurion's transversal crested helmet and horse, led by his equerry, probably a slave.

Dates from *ante* 117, when XV Apollinaris was transferred from Carnuntum (Austria) to the East.

Cohors equitata

These were *cohortes* with a cavalry contingent attached. There is evidence that their numbers expanded with the passage of time. Only about 40% of attested *cohortes* are specifically attested as *equitatae* in inscriptions, which is probably the original Augustan proportion. A study of units stationed in Syria in the mid 2nd century found that many units which did not carry the *equitata* title did in fact contain cavalrymen e.g. by discovery of a tombstone of a cavalryman attached to the cohort. This implies that by that time, at least 70% of *cohortes* were probably *equitatae*.^[103] The addition of cavalry to a cohort obviously enabled it to carry out a wider range of independent operations. A *cohors equitata* was in effect a self-contained mini-army.^[104]

The traditional view of *equites cohortales* (the cavalry arm of *cohortes equitatae*), as expounded by G.L. Cheesman, was that they were just a mounted infantry with poor-quality horses. They would use their mounts simply to reach the battlefield and then would dismount to fight.^[105] This view is today discredited. Although it is clear that *equites cohortales* did not match *equites alares* (*ala* cavalrymen) in quality (hence their lower pay), the evidence is that they fought as cavalry in the same way as the *alares* and often alongside them. Their armour and weapons were the same as for the *alares*.^[106]

Nevertheless, non-combat roles of the *equites cohortales* differed significantly from the *alares*. Non-combat roles such as despatch-riders (*dispositi*) were generally filled by cohort cavalry.

Auxiliary specialised units

In the Republican period, the standard trio of specialised auxilia were Balearic slingers, Cretan archers and Numidian light cavalry. These functions, plus some new ones, continued in the 2nd century auxilia.

Heavily armoured lancers

Equites cataphractarii, or simply *cataphractarii* for short, were the heavily armoured cavalry of the Roman army. Based on Sarmatian and Parthian models, they were also known as *contarii* and *clibanarii*, although it is unclear whether these terms were interchangeable or whether they denoted variations in equipment or role. Together with new units of light mounted archers, the *cataphractarii* were designed to counter Parthian (and, in Pannonia, Sarmatian) battle tactics. Parthian armies consisted largely of cavalry. Their standard tactic was to use light mounted archers to weaken and break up the Roman infantry line, and then to rout it with a charge by the *cataphractarii* concentrated on the weakest point.^[107] The only special heavy cavalry units to appear in the 2nd century record are: *ala I Ulpia contariorum* and *ala I Gallorum et Pannoniorum cataphractaria* stationed in Pannonia and Moesia Inferior respectively in the 2nd century.^[108]



Routed Sarmatian cataphracts (right) flee for their lives from Roman *alares* (auxiliary cavalrymen), during the Dacian Wars (AD 101-6). Note full-body scalar armour, also armoured caparison for horses (including eye-guards). The Sarmatians' lances (as well as the Romans') have disappeared due to stone erosion, but a sword is still visible, as is a bow carried by one man.
Panel from Trajan's Column, Rome

Light cavalry

From the Second Punic War until the 3rd century AD, the bulk of Rome's light cavalry (apart from mounted archers from Syria) was provided by the inhabitants of the northwest African provinces of Africa proconsularis and Mauretania, the Numidae or Mauri (from whom derives the English term "Moors"), who were the ancestors of the Berber people of modern Algeria and Morocco. They were known as the *equites Maurorum* or *Numidarum* ("Moorish or Numidian cavalry"). On Trajan's Column, Mauri horsemen, depicted with long hair in dreadlocks, are shown riding their small but resilient horses bare-back and unbridled, with a simple braided rope round their mount's neck for control. They wear no body or head armour, carrying only a small, round leather shield. Their weaponry cannot be discerned due to stone erosion, but is known from Livy to have consisted of several short javelins.^{[109][110]} Exceptionally fast and manoeuvrable, Numidian cavalry would harass the enemy by hit-and-run attacks, riding up and loosing volleys of javelins, then scattering faster than any opposing cavalry could pursue. They were superbly suited to scouting, harassment, ambush and pursuit, but in melee combat were vulnerable to cuirassiers.^[111] It is unclear what proportion of the Numidian cavalry were regular auxilia units as opposed to irregular *foederati* units.^[112]



Numidian light cavalry (*equites Numidae*) deployed in the conquest of Dacia (right). Note the dreadlocks, lack of armour, saddles or bridles. Detail from Trajan's Column, Rome

In the 3rd century, new formations of light cavalry appear, apparently recruited from the Danubian provinces: the *equites Dalmatae* ("Dalmatian cavalry"). Little is known about these, but they were prominent in the 4th century, with several units listed in the *Notitia Dignitatum*.

Camel troops

A unit of *dromedarii* ("camel-mounted troops") is attested from the 2nd century, the *ala I Ulpia dromedariorum milliaria* in Syria.^[113]

Archers

A substantial number of auxiliary regiments (32, or about 1 in 12 in the 2nd century) were denoted *sagittarium*, or archer-units (from *sagittarii* lit. "arrow-men", from *sagitta* = "arrow": It. *saetta*, Rom. *sageata*). These 32 units (of which 4 were double-strength) had a total official strength of 17,600 men. All three types of auxiliary regiment (*ala*, *cohors* and *cohors equitata*) could be denoted *sagittarium*. Although these units evidently specialised in archery, it is uncertain from the available evidence



Roman archers (top left) in action. Note conical helmets, indicating a Syrian unit, and recurved bows. Trajan's Column, Rome

whether all *sagittarium* personnel were archers, or simply a higher proportion than in ordinary units. At the same time, ordinary regiments probably also possessed some archers, otherwise their capacity for independent operations would have been unduly constrained. Bas-reliefs appear to show personnel in ordinary units employing bows.^[114]

From about 218 BC onwards, the archers of the Roman army of the mid-Republic were virtually all mercenaries from the island of Crete, which boasted a long specialist tradition. During the late Republic (88-30 BC) and the

Augustan period, Crete was gradually eclipsed by men from other, much more populous, regions with strong archery traditions, newly subjugated by the Romans. These included Thrace, Anatolia and above all, Syria. Of the 32 *sagittarii* units attested in mid 2nd century, 13 have Syrian names, 7 Thracian, 5 from Anatolia, 1 from Crete and the remaining 6 of other or uncertain origin.^[25]

Three distinct types of archers are shown on Trajan's Column: (a) with scalar cuirass, conical steel helmet and cloak; (b) without armour, with cloth conical cap and long tunic; or (c) equipped in the same way as general auxiliary foot-soldiers (apart from carrying bows instead of javelins). The first type were probably Syrian or Anatolian units; the third type probably Thracian.^[115] The standard bow used by Roman auxilia was the recurved composite bow, a sophisticated, compact and powerful weapon.^[114]

Slings

From about 218 BC onwards, the Republican army's slingers were exclusively mercenaries from the Balearic Islands, which had nurtured a strong indigenous tradition of slinging from prehistoric times. As a result, in classical Latin, *Baleares* (literally "inhabitants of the Balearic Islands") became an alternative word for "slingers" (*funditores*, from *funda* = "sling": It. *fionda*, Fr. *fronde*). Because of this, it is uncertain whether the most of the imperial army's slingers continued to be drawn from the Balearics themselves, or, like archers, derived mainly from other regions.

Independent slinger units are not attested in the epigraphic record of the Principate.^[114] However, slingers are portrayed on Trajan's Column. They are shown unarmoured, wearing a short tunic. They carry a cloth bag, slung in front, to hold their shot (*glandes*).^[115]

Scouts

Exploratores ("reconnaissance troops", from *explorare* = "to scout"): Examples include two *numeri exploratorum* attested in the 3rd century in Britain: *Habitanco* and *Bremenio* (both names of forts). Little is known about such units.^[116]



Roman slingers (*funditores*) in action in the Dacian Wars. Detail from Trajan's Column, Rome

Irregular allied forces

Throughout the Principate period, there is evidence of ethnic units of *barbari* outside the normal auxilia organisation fighting alongside Roman troops. To an extent, these units were simply a continuation of the old client-king levies of the late Republic: *ad hoc* bodies of troops supplied by Rome's puppet petty-kings on the imperial borders for particular campaigns. Some clearly remained in Roman service beyond the campaigns, keeping their own native leadership, attire and equipment and structure. These units were known to the Romans as *socii* ("allies"), *symmachiarii* (from *symmachoi*, Greek for "allies") or *foederati* ("treaty troops" from *foedus*, "treaty"). One estimate puts the number of *foederati* in the time of Trajan at ca. 11,000, divided into ca. 40 *numeri* (units) of ca. 300 men each. The purpose of employing *foederati* units was to use their specialist fighting skills.^[117] Many of these would have been troops of Numidian cavalry (see light cavalry above).

The *foederati* make their first official appearance on Trajan's Column, where they are portrayed in a standardised manner, with long hair and beards, barefoot, stripped to the waist, wearing long trousers held up by wide belts and wielding clubs. In reality several different tribes supported the Romans in the Dacian wars. Their attire and weapons would have varied widely. The Column stereotypes them with the appearance of a single tribe, probably the most outlandish-looking, to differentiate them clearly from the regular auxilia.^[118] Judging by the frequency of their

appearance in the Column's battle scenes, the *foederati* were important contributors to the Roman operations in Dacia. Another example of *foederati* are the 5,500 captured Sarmatian cavalrymen sent by Emperor Marcus Aurelius (r. 161–180) to garrison a fort on Hadrian's Wall after their defeat in the Marcomannic Wars.^[119]

Recruitment

Legions

As had been the case during the Republic, the legions of the Principate era recruited Roman Citizens exclusively. In the 1st and 2nd centuries, these represented a minority of the empire's inhabitants (about 10 - 20%). From the time of Augustus, legionary recruitment was largely voluntary. Republican-style conscription of citizens was only resorted to during emergencies which demanded exceptionally heavy recruitment, such as the Illyrian revolt (AD 6-9).

Once the borders of the empire stabilised in the mid-1st century, most legions were based in particular provinces long-term. The number of Italian-born recruits dwindled. According to one survey, ca. 65% were Italian-born in the early Julio-Claudian period (to AD 41), 49% in the period 42-68, 21% in the Flavian era (69-96) and around 8% under Hadrian. Italians thus represented ca. 4% of total army recruits under Hadrian, if one takes into account the *auxilia*, despite constituting ca. 12% of the empire's population, and well over 50% of its citizen-body, in 164.^[72] However, it should be borne in mind that many legionary recruits born outside Italy were residents of Roman colonies originally established to settle legionary veterans. As descendants of the latter, such recruits were, at least partially, of Italian blood; e.g. the emperor Hadrian, who was born in the Roman colony of *Italica* in Spain and both of whose parents were of mixed Italo-Iberian blood. However, the proportion of legionaries of Italian blood dropped still further as the progeny of auxiliary veterans, who were granted citizenship on discharge, became a major source of legionary recruits. It was probably to redress this shortfall that Marcus Aurelius, faced with a major war against the Marcomanni, raised two new legions in 165, *II Italica* and *III Italica*, apparently from Italian recruits (and presumably by conscription).^[120]

A major recruitment problem for the legions was that the host provinces often lacked a sufficiently large base of citizens to satisfy their recruitment needs. For example, Britannia province, where Mattingly doubts that the 3 legions deployed could fill their vacancies from a citizen-body of only ca. 50,000 in AD 100 (less than 3% of about 2 million total inhabitants). This implies that the British legions must have drawn many recruits from elsewhere, especially from northern Gaul.^[121]

The frontier legions' recruitment problems have led some historians to suggest that the rule limiting legionary recruitment to citizens was largely ignored in practice. But the evidence is that the rule was strictly enforced e.g. the recorded case of 2 recruits who were sentenced to be flogged and then expelled from a legion when it was discovered that they had lied about their status.^[122] The only significant exception to the rule appears to have concerned the sons of legionaries. From the time of Augustus until the rule of Septimius Severus (197-211), serving legionaries were legally prohibited from marrying (presumably so as to discourage them from deserting if they were deployed far from their families). However, with most legions deployed in the same bases long-term, legionaries often did develop stable relationships and bring up children. The latter, although of Roman blood, were illegitimate in Roman law and thus could not inherit their fathers' citizenship. Nevertheless, it appears that the sons of serving legionaries were routinely recruited, perhaps through the device of granting them citizenship when they enlisted.^[123]

Auxilia

In the 1st century, the vast majority of auxiliary common soldiers were recruited from the Roman *peregrini* (second-class citizens). In the Julio-Claudian era (to AD 68), conscription of *peregrini* seems to have been practiced, probably in the form of a fixed proportion of men reaching military age in each tribe being drafted, alongside voluntary recruitment.^[124] From the Flavian era onwards, it appears that the auxilia were, like the legions, a largely volunteer force, with conscription resorted to only in times of extreme manpower demands e.g. during Trajan's Dacian Wars (101-6).^[125] Although recruits as young as 14 are recorded, the majority of recruits (66%) were from the 18–23 age group.^[126]

When it was first raised, an auxiliary regiment would have been recruited from the native tribe or people whose name it bore. In the early Julio-Claudian period, it seems that efforts were made to preserve the ethnic integrity of units, even when the regiment was posted in a faraway province, but in the later part of the period, recruitment in the region where the regiment was posted increased and became predominant from the Flavian era onwards.^[124] The regiment would thus lose its original ethnic identity.^[127] The unit's name would thus become a mere curiosity devoid of meaning, although some of its members might inherit foreign names from their veteran ancestors. This view has to be qualified, however, as evidence from military diplomas and other inscriptions shows that some units continued to recruit in their original home areas e.g. Batavi units stationed in Britain, where several other units had an international membership.^[128] It also appears that the Danubian provinces (Raetia, Pannonia, Moesia, Dacia) remained key recruiting grounds for units stationed all over the empire.^{[129][130]}

About 50 auxiliary regiments founded by Augustus were, exceptionally, recruited from Roman citizens. This was due to the emergency manpower requirements of the Illyrian revolt (AD 6-9), which was described by the Roman historian Suetonius as the most difficult conflict Rome had faced since the Punic Wars. Although the Republican minimum property requirement for admission to the legions had long since been abandoned, citizens who were vagrants, convicted criminals, undischarged debtors, or freed slaves (Roman law accorded citizenship to the freed slaves of Roman citizens) were still excluded. Desperate for recruits, Augustus had already resorted to the compulsory purchase and emancipation of thousands of slaves for the first time since the aftermath of the Battle of Cannae two centuries earlier.^[131] But the emperor found the idea of admitting such men to the legions unpalatable. So he formed separate auxiliary regiments from them. These units were accorded the title *civium Romanorum* ("of Roman citizens"), or *c.R.* for short. After the Illyrian revolt, these cohorts remained in being and recruited *peregrini* like other auxiliary units, but retained their prestigious *c.R.* title.^{[85][132]} Subsequently, many other auxiliary regiments were awarded the *c.R.* title for exceptional merit, an award that conferred citizenship on all their currently serving members.



Tombstone of auxiliary infantryman **Marius son of Ructicus**. The inscription states that he was a *miles* (ranker) of the Alpine infantry regiment **Cohors I Montanorum**, who died in his 25th year of service. His heir, who erected the stone, is named *Montanus*, the same ethnic name as the regiment's, meaning a native of the eastern Alps, most likely the origin of the deceased. Note (top corners) the Alpine edelweiss flowers, called *stella Alpina* ("Alpine star") in Latin, probably a national symbol of the Montani. Probably dating from before 68, the memorial illustrates how auxiliary regiments maintained their ethnic identity in the Julio-Claudian period. From Carinthia, Austria

Apart from the citizen-regiments raised by Augustus, Roman citizens were regularly recruited to the auxilia. Most likely, the majority of citizen-recruits to auxiliary regiments were the sons of auxiliary veterans who were enfranchised on their fathers' discharge.^[133] Many such men may have preferred to join their fathers' old regiments, which were a kind of extended family to them, rather than join a much larger, unfamiliar legion. Legionaries frequently transferred to the auxilia (mostly promoted to a higher rank).^[134] The incidence of citizens in the auxilia would thus have grown steadily over time until, after the grant of citizenship to all *peregrini* in 212, auxiliary regiments became predominantly, if not exclusively, citizen units.

It is less clear-cut whether the regular auxilia recruited *barbari* (barbarians, as the Romans called people living outside the empire's borders). Although there is little evidence of it before the 3rd century, the consensus is that the auxilia recruited barbarians throughout their history.^{[135][136]} In the 3rd century, a few auxilia units of clearly barbarian origin start to appear in the record e.g. *Ala I Sarmatarum*, *cuneus Frisiorum* and *numerus Hnaufredi* in Britain.^{[116][137]}

Ranks, role and pay

A legion's ranks, role and pay, with auxiliary and modern equivalents, may be summarised as follows:

LEGIONS: Ranks, Role and Pay (ca. AD 100)^[138]

Pay-scale (X basic)	Legionary rank (ascending order)	Number in legion	Role	Auxilia equivalent: cohors (ala)	Social rank	Approx. modern rank-equivalent (U.K.)
1	<i>pedes</i>	5,120	infantryman	<i>pedes (eques)</i>	commoner	private
1.5	<i>cornicen</i> <i>tesserarius</i>	59 59	horn-blower officer of the watch	<i>cornicen</i> <i>tesserarius</i> <i>(sesquiplicarius)</i>	commoners	Sergeant
2	<i>optio</i> <i>signifer</i> <i>imaginifer</i> <i>aquilifer</i>	59 59 1 1	centurion's deputy <i>centuria</i> standard-bearer bearer of emperor's image legion standard-bearer	<i>optio (duplicarius)</i> <i>signifer</i> <i>vexillarius</i> - - - (<i>curator</i>)	commoners	2nd Lieutenant
16	<i>centurio</i>	45	centurion	<i>centurio (decurio)</i>	commoner	Lieutenant/Captain
n.a.	<i>centurio primi ordinis</i>	13 (9 <i>pilus</i> <i>prior</i> + 4 1st Cohort)	senior centurion	<i>centurio princeps</i> <i>(decurio princeps)</i>	commoner	Captain
n.a.	<i>centurio primus pilus</i> ⁽¹⁾	1	chief centurion	none	commoner ⁽¹⁾	Major
50	<i>tribunus militum</i> <i>angusticlavius</i>	5	legion staff-officer	<i>praefectus auxilii</i> (regimental commander)	knight	colonel
n.a.	<i>praefectus castrorum</i>	1	legion quartermaster (executive officer)	none	knight	
n.a.	<i>tribunus militum</i> <i>laticlavius</i>	1	legion deputy commander	none	senatorial (senator's son)	
70	<i>legatus legionis</i>	1	legion commander	none	senator	general

Notes: (1) Elevated by emperor to equestrian rank on completion of single-year term of office

Explanation of modern rank comparisons: It is difficult to make exact comparisons with the ranks of an army from the pre-industrial age where noble birth was the pre-requisite for senior positions and such comparisons should be treated with caution. Nevertheless, some approximate parallels can be found. The ones presented here are drawn from Grant's translation of the *Annales* by Tacitus.^[139]

As they mostly rose from the ranks, centurions are compared to modern sergeants-major, the most senior officers without a commission. An ordinary centurion was in command of a *centuria* of 80 men, equivalent to a company in a modern army, and is thus comparable to a company sergeant-major. Senior centurions, known as *primi ordinis* ("of the first order"), consisted of the 5 commanders of the double-strength *centuriae* of the First Cohort (160 men each); and the 9 *pilus prior* centurions (commanders of the 1st *centuria* of each cohort), who in the field presumably led their whole cohort of 480 men, equivalent to a modern battalion. A senior centurion is thus likened to a regimental sergeant-major, the most senior non-commissioned officer in a battalion. The *primus pilus*, the chief centurion of the legion, has no clear parallel.

From the centurionate, the rank-structure jumps to the military tribunes, aristocrats who were directly appointed senior officers and thus comparable to modern commissioned officers. Since in the field they could command one or more cohorts (and their equivalent in the auxilia, a *praefectus* commanded a cohort-sized regiment), these officers are comparable to modern colonels, who normally command battalions or regiments in a modern army. Finally, the *legatus legionis* was in command of the whole legion (over 5,000 men, equivalent to a modern brigade), plus roughly the same number of auxiliaries in attached regiments, bringing the total to ca. 10,000 men, equivalent to a modern division. Thus a *legatus* is comparable to a modern general officer. The legions thus lacked any equivalent to modern junior commissioned officers (lieutenant to major). This is because the Romans saw no need to complement their centurions, who were considered fully capable of field commands, with commissioned officers. As a consequence, a chief centurion promoted to *praefectus castrorum* would leap from sergeant-major to the rank of colonel in one bound.

Rankers (*caligati*)

At the bottom end of the rank pyramid, rankers were known as *caligati* (lit: "sandalled men" from the *caligae* or hob-nailed sandals worn by soldiers), or simply as *milites* ("soldiers"). Depending on the type of regiment they belonged to, they held the official ranks of *pedes* (foot soldier in a legion or auxiliary *cohors*), *eques* (cavalryman in legionary cavalry or an auxiliary *cohors equitata*) and *eques alaris* (*ala* cavalryman).^[140] A new recruit under training was known as a *tiro*, and received half-pay.

Soldiers' working lives were arduous. As well as facing the hardships of military discipline and training, and the dangers of military operations, soldiers fulfilled a large number of other functions, such as construction workers, policemen, and tax collectors (see below, Everyday life). It has been estimated from the available data that only an average of ca. 50% of recruits survived their 25-year term of service. This mortality rate was well in excess of the contemporary demographic norm for the 18-23 age-group.^[76] An indication of the rigours of military service in the imperial army may be seen in the complaints aired by rebellious legionaries during the great mutinies that broke out in the Rhine and Danube legions on the death of Augustus in AD 14.^[141]

"Old men, mutilated by wounds are serving their 30th or 40th year. And even after your official discharge, your service is not finished. For you stay on with the colours as a reserve, still under canvas - the same drudgery under another name! And if you manage to survive all these hazards, even then you are dragged off to a remote country and settled in some waterlogged swamp or untilled mountainside. Truly the army is a harsh, unrewarding profession! Body and soul are reckoned at two and a half *sesterces* a day - and with this you have to find clothes, weapons, tents and bribes for brutal centurions if you want to avoid chores. Heaven knows, lashes and wounds are always with us! So are hard winters and hardworking summers..."^[142]

"The soldiers' reply was to tear off their clothes and point to the scars left by their wounds and floggings. There was a confused roar about their wretched pay, the high cost of exemptions from duty, and the hardness of the work. Specific reference was made to earthworks, excavations, foraging, collecting timber and firewood..."^[143]

The gross and net pay of legionaries and auxiliaries may be summarised as follows:



Historical re-enactor wearing replica equipment of a Roman legionary about AD 100, standing in front of his platoon's tent. Note the one-piece, short-sleeved tunic, "Imperial Gallic"-type helmet, *lorica segmentata* body armour, *gladius Hispaniensis*-type sword (in soldier's right hand), *pugio* (dagger) on left hip, *scutum* (rectangular shield, resting on ground, right), with *alae et fulmina* ("wings-and-thunderbolts") motif representing Jupiter, the highest Roman deity.



Typical Roman Legionary

REMUNERATION OF ROMAN COMMON FOOT SOLDIERS (about AD 70)^[144]

Remuneration item	legionary <i>pedes</i> : amount (<i>denarii</i>) (annualised)	XXX	auxiliary <i>pedes</i> amount (<i>denarii</i>) (annualised)
<i>Stipendium</i> (gross salary)	225		188
<i>Less</i> : Food deduction	60		60
<i>Less</i> : Equipment etc. deductions	50		50
Net disposable pay	115		78
<i>Plus</i> : <i>Donativa</i> (bonuses) (average: 75 <i>denarii</i> every 3 years)	25		none proven
Total disposable income	140		78
<i>Praemia</i> (discharge bonus: 3,000 <i>denarii</i>)	120		none proven

Basic legionary pay was set at 225 *denarii* per annum under Augustus. Until at least AD 100, auxiliary soldiers were apparently paid less than their legionary counterparts. In the early Julio-Claudian period, it has been suggested that an auxiliary foot-soldier was paid only a third the rate of a legionary (although an *eques alaris* was paid two-thirds).^[145] By AD 100, the differential had narrowed dramatically. An auxiliary *pedes* was paid 20% less than his legionary counterpart at the time of Domitian (81-97) (but an *eques cohortalis* the same and an *eques alaris* 20% more).^[146] Soldiers' pay was increased by 33% *denarii* under Domitian (r.81-96). Septimius Severus (r. 197-211) increased the rate by a further 25%, and then his successor Caracalla (r. 211-8) by 50% again.^[147] But in reality, these pay rises only more-or-less covered price inflation over this period, which is estimated at ca. 170% by Duncan-Jones.^[74] Since the debasement of the central silver coinage, the *denarius*, roughly reflected general inflation, it can be used as a rough guide to the real value of military pay:

REAL TREND OF LEGIONARY PAY (AD 14 - 215)^[148]

Emperor	Nominal pay of legionary (<i>denarii</i>)	No. of <i>denarii</i> minted from 1 lb. silver	Real pay of legionary (in constant AD 14 <i>denarii</i>)
Augustus (to AD 14)	225	85	225
Vespasian (70-81)	225	103	186
Domitian (81-96)	300	101	252
Hadrian (117-38)	300	105	243
S. Severus (197-211)	400	156	218
Caracalla (211-8)	600	192	265

Furthermore, a soldier's gross salary was subject to deductions for food and equipment. The latter included weapons, tents, clothing, boots and hay (probably for the company mules).^{[14][149]} These deductions would leave the 1st-century legionary with a modest disposable income of ca. 115 *denarii*, and an auxiliary 78 *denarii*.

A legionary's daily pay-rate of 2.5 *sesterces* was only marginally greater than a common day-labourer in Rome could expect in this period (typically 2 *sesterces* per day).^[150] Such modest remuneration for a tough service raises the

question of how the imperial army succeeding in raising sufficient volunteers with only the occasional recourse to conscription. The reason is that the comparison with a Rome day-labourer is misleading. The vast majority of the army's recruits were drawn from provincial peasant families living on subsistence farming i.e. farmers who after paying rent, taxes and other costs were left with only enough food to survive: the situation of ca. 80% of the Empire's population.^[151] To such persons, any disposable income would appear attractive, and the physical rigours of army service no worse than back-breaking drudgery in the fields at home. In any case, where a peasant family had more children than its plot of land could support, enlistment of one or more sons in the military would have been a matter of necessity, rather than choice.

In addition, soldiers enjoyed significant advantages over day-labourers. They had job security for life (assuming they were not dishonourably discharged). Legionaries could count on irregular but substantial cash bonuses (*donativa*), paid on the accession of a new emperor and on other special occasions; and, on completion of service, a substantial discharge-bonus (*praemia*) equivalent to 13 years' gross pay, which would enable him to buy a large plot of land. Auxiliaries were exempt from the annual poll-tax payable by all their fellow-*peregrini* and were rewarded on discharge with Roman citizenship for themselves and their heirs. Duncan-Jones argues that, at least from the time of Hadrian, auxiliaries also received *donativa* and *praemia*.^[152] Finally, a ranker had a 1 in 20 chance of increasing his pay by 50-100% by gaining promotion to the rank of *principalis* or junior officer. Out of 480 men, a typical cohort would contain 24 junior officers (other than specialists).

The great mutinies of AD 14, which were about pay and conditions - as distinct from later revolts in support of a contender for the imperial throne - were never repeated. The reason they occurred at all was probably because, at the time, many legionaries were still conscripts (mostly enlisted during the Illyrian revolt crisis of AD 6-9) and the majority still Italians. This made them far less tolerant of the hardships of military life than provincial volunteers. Italians were by this stage used to a higher standard of living than their provincial subjects, largely due to a massive effective subsidy by the latter: Italians had long been exempt from direct taxation on land and heads and, at the same time, rents from the vast imperial and private Roman-owned estates carved out by conquest in the provinces largely flowed to Italy. Thus, a central demand of the 14 CE mutineers was that legionary pay be increased from 2.5 to 4 *sesterces* (1 *denarius*) per day. This was conceded by Tiberius in order to pacify the mutiny, but soon revoked as unaffordable, and pay remained at roughly the same real level into the 3rd century.

Rankers with specialist skills were classed as *milites immunes* ("exempt soldiers"), meaning that they were exempt from the normal duties of their fellow-soldiers so that they could practice their trade. A legion would contain over 600 *immunes*.^[153] Over 100 specialist jobs are attested, including the all-important blacksmiths (*fabri*), among whom the *scutarii* ("shield-men"), probably smiths that specialised in weapons manufacture or repair, and other craftsmen who worked in the *fabrica*; *carpentarii* ("wagon-makers/repairers", or, generally, "carpenters"); *capsarii* (wound-dressers) and *seplasiarii* ("ointment-men"), medical orderlies who worked in the *valetudinarium* (hospital in a legionary fortress) or *hospitium* (auxiliary fort hospital); *balniator* (bath attendant); and *cervesarius* (beer-brewer).^[154] It is uncertain, however, whether the latter two jobs were held by *milites immunes* or by civilians working for the unit on contract.^[155] *Immunes* were on the same pay-scale as other rankers.^[153]

Junior officers (*principales*)

Legions

Below centurion rank, junior officers in the *centuria* were known as *principales*. *Principales*, together with some specialists, were classified in two pay-scales: *sesquiplicarii* ("one-and-a-half-pay soldiers") and *duplicarii* ("double-pay soldiers").^[156] These ranks probably most closely resembled the modern ranks of corporal and sergeant respectively. A higher rank of *triplicarius* ("triple-pay soldier") is attested very rarely in the 1st century and this pay-scale was probably short-lived.^[157] *Sesquiplicarii* included the *cornicen* (horn-blower), who blew the *cornu*, a long, three-piece circular horn. Above him was the *tesserarius* (literally "tablet-holder", from *tessera* = "wax tablet", on which the daily password was inscribed), who was the officer of the watch. *Duplicarii*, in ascending order of

rank, were the *optio*, or centurion's deputy, who was appointed by his centurion and would expect to succeed him when the latter was promoted. While a centurion led his unit from the front in battle, his *optio* would bring up the rear. Responsible for preventing rankers from leaving the line, the *optio* was equipped with a long, silver-tipped stave which was used to push the rear ranks forward. Ranking just below centurion was the *signifer* (standard-bearer), who bore the *centuria signum*. In the field, the *signifer* wore the skin of a lion's head over his own.^[158] At the legionary level, the *vexillarius* had charge of the commander's *vexillum*, or banner, and accompanied the *legatus* in the field. The *aquilifer* bore the legion's *aquila* standard, and accompanied the chief centurion, as did the legion's *imaginifer*, who bore a standard with the emperor's image. All these standard-bearers were *duplicarii*.

Auxilia

An auxiliary regiment's ranks appear broadly the same as in a legionary *centuria*. These were, in ascending order: *tesserarius*, *optio*, *signifer* (standard-bearer for the *centuria*). However, all auxiliary regiments also contained a *custos armorum* ("keeper of the armoury"), on pay-and-a-half. In addition, there was a *vexillarius*, who bore the cohort's *vexillum*, on double-pay. In the *alae*, ranks were somewhat differently named. The equivalent of *tesserarius* was known simply as a *sesquiplicarius* and of *optio* as a *duplicarius*. In addition, there was a rank of *curator* on double-pay just below decurion, who apparently was in charge of horses and caparison.^[159]

Mid-level officers (*centuriones* and *decuriones*)

Legions

The great majority of rankers never advanced beyond *principalis*. The few who did became centurions, a rank that they would normally attain after 13–20 years of service.^[160] Promotion to the centurionate, known to the Romans simply as the *ordo*, or "rank", was normally in the hands of the *legatus legionis*. However, the latter occasionally followed the Republican tradition and allowed the men of a *centuria* to elect their own centurion. Although most centurions rose from the ranks, it was possible for a young man to be directly commissioned: these were mostly the sons of active or retired centurions.^[161]

Centurions were arguably the most important group of officers in the army, as they led the legions' tactical sub-units (cohorts and *centuriae*) in the field. In consequence, on becoming a centurion, a soldier's pay and prestige would undergo a quantum-leap. Centurions were paid far more than their men. The available evidence is scant, but suggests that, in the 2nd century, an ordinary centurion was paid 16 times the pay of a ranker.^[162] If so, the differential had widened dramatically since the days of the Punic Wars, when a centurion was paid just double the rate of a ranker i.e. was a *duplicarius* in imperial terms.^[163] By the time of Caesar, the standing of centurions had greatly increased: in 51 BC, after an especially tough campaign during the Gallic War, Caesar promised his troops a bonus of 50 *denarii* per man, and 500 each to the centurions, indicating that a differential of 10 times was commonplace even in the late Republic.^[164]

Each legion contained 60 (later 59) centurions, ranked in an elaborate hierarchy. Each cohort was ranked in seniority, the 1st Cohort (whose *centuriae*, after about AD 80, were double-strength) being the highest. Within each cohort, each *centuria*, and thus its commanding centurion, was similarly ranked. Within this hierarchy, three broad ranks can be discerned: ordinary centurions, senior centurions (*primi ordinis* or "first rank") and the legion's chief centurion (*primus pilus*). Senior centurions included those in command of the 5 *centuriae* in the 1st Cohort and the *pilus prior* ("front-spear") centurions of the other 9 cohorts.^[165]

All centurions, including the *primus pilus*, were expected to lead their units from the front, on foot like their men, and were invariably in the thick of any combat melee. As a consequence, their casualty rates in battle were often heavy. An example from Caesar's *De Bello Gallico*, during a battle against the Belgic tribes



Cenotaph stone dedicated to the legionario *centurio primi ordinis* (senior centurion) of the 18th legion (Legio XVIII) Marcus Caelius. Note Caelius' multiple decorations for valour: on his head, the highest military honour, the *corona civica* (crown of oak-leaves), for saving the life of a fellow-Roman citizen in battle; on the wrist, *armilla* (silver bracelet); on the cuirass, *phalerae* (medallions, usually of silver) and torcs. In his right hand, the centurion carries the *vitis* (vine-stick), a badge of rank. The legend states that Caelius was from *Bononia* (Bologna, N. Italy, a Roman colony founded in 189 BC). He perished, aged 53, in "Varus' War", when his legion was annihilated by the Germans at the Battle of the Teutoburg Forest (AD 9).
Rheinisches Landesmuseum, Bonn, Germany

of northern Gaul (57 BC): "Caesar had gone to the right wing, where he found the troops in difficulties... All the centurions of the 4th cohort [of the 12th legion] were dead, and the standard lost; nearly all the centurions of the rest of the cohorts were either killed or wounded, including the chief centurion, P. Sextius Baculus, a very brave man, who was so disabled by serious wounds that he could no longer stand on his feet."^[166] Or again, in a later battle against Vercingetorix at *Gergovia* (52 BC): "Attacked from all sides, our men held their ground until they had lost 46 centurions..."^[167] In battle, centurions were also responsible for the security of their unit's standard, whose bearer, the *signifer*, stayed close to his centurion on the battlefield. The chief centurion was accompanied by the *aquilifer* and had the even weightier responsibility of protecting the legion's *aquila* (eagle-standard).^[165]

Centurions were also responsible for discipline in their units, symbolised by the *vitis* or vine-stick which they carried as a badge of their rank. But the stick was by no means purely symbolic and was frequently used to beat recalcitrant rankers. Tacitus relates that one centurion in the army in Pannonia gained the nickname *Da mihi alteram!* ("Give-me-another!") for his propensity to break his stick over his men's backs and then shout at his *optio* to bring him a new one.^[168] Centurions often earned the hatred of their men, as shown during the great mutinies which broke out on the Rhine-Danube borders on the death of Augustus. In one legion, each centurion was given 60 lashes of the flail by the mutineers, to represent the brigade's total number of centurions, and was then thrown into the Rhine to drown.^[169]

Outside the military sphere, centurions played performed a wide range of administrative duties, which was necessary in the absence of an adequate bureaucracy to support provincial governors. A centurion might serve as a *regionarius*, or district-supervisor, on behalf of the provincial governor.^[170] They were also relatively wealthy individuals, due to their high salaries. In retirement, they often held high civic positions in the councils of Roman *coloniae* (veterans' colonies).^[171]

However, in social rank, the vast majority of centurions were commoners. In the class-conscious system of the Romans, this rendered even senior centurions far inferior in status to any of the legion's *tribuni militum* (who were all of equestrian rank), and ineligible to command any unit larger than a *centuria*. This is probably the reason why a cohort did not have an official commander: however, many historians believe that a cohort in the field was under the de facto command of its leading centurion, the *pilus prior*, the commander of the cohort's 1st *centuria*.^[172] The only escape-route for centurions from this "class-trap" was to reach the highest grade of *primus pilus*. On completing his single-year term of office, the chief centurion of each legion (i.e. some 30 individuals each year) was elevated to equestrian rank by the emperor.^[161]

At this point, the whole range of command positions reserved for knights would be attainable. Normally, a former *primus pilus* (known as a *primipilaris*) would be promoted to *praefectus castrorum* (quartermaster and third officer) of a legion or to tribune of a Praetorian cohort in Rome. However, *primipilares* rarely progressed beyond this level because of their age, unless they were the minority who were directly commissioned as young men. It would typically take a ranker 13–20 years just to reach centurion-rank and probably the same again to reach *primus pilus*. Most *primipilares* would thus be in their 50's when elevated to the Order of Knights, whereas hereditary knights would be appointed to military tribunates of a legion at around 30. Thus the higher posts reserved for knights, such



Historical re-enactor wearing replica equipment of a late 1st-century centurion

as the governorates of equestrian provinces, command of the fleets or of the Praetorian Guard were rarely held by former centurions.^[173]

Auxilia

Auxiliary cohorts were also divided into *centuriae*, ranked in order of seniority. The centurion commanding the 1st *centuria* was known as the *centurio princeps* ("leading centurion") and was the 2nd-in-command of the cohort after the *praefectus*. In the cavalry, the equivalent rank was the *decurio* (decurion), in command of a *turma* (squadron) of 30 troopers. Again, the decurion of the 1st *turma* was designated the *decurio princeps*.

Most of the surviving evidence concerns legionary centurions and it is uncertain whether their auxiliary counterparts shared their high status and non-military role.^[174] It appears that many auxiliary *centuriones* and *decuriones* were members of native provincial aristocracies who were directly commissioned.^[174] Auxiliary centurions risen from the ranks were thus probably less predominant than in the legions. Those rising from the ranks could be promotions from the legions as well as from the regiment's own ranks. In the Julio-Claudian period, auxiliary centurions and decurions were a roughly equal split between citizens and *peregrini*, though later citizens became predominant due to the spread of citizenship among military families.^[175] There is little evidence about the pay-scales of auxiliary centurions and decurions, but these are also believed to have amounted to several times that of their men.^[176]

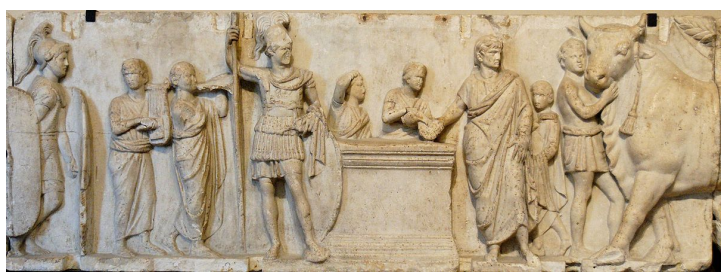
Senior officers (*legati*, *tribuni militum* and *praefecti*)

Legions

5 of the legion's 6 military tribunes were known as *angusticlavii* ("narrow-banded", from the stripes a Roman knight was entitled to wear on his *tunica*, which was narrower than a senator's). They differed from their senatorial colleague, the *laticlavius* ("broad-banded"), in age, rank and experience. Before embarking on their military service (*tres militiae*), their normal *cursus honorum* required them to perform the full range of administrative and religious posts in the council of their home city.

Minimum-age limits for such posts implied that they would be at least 30 before starting the *tres militiae*.^[172] By the time they became tribune of a legion, they would already have led an auxiliary cohort for 3 or 4 years, giving them substantial command experience. They were responsible for the legion's administration, for which they were provided with a personal staff of clerks and *principales*.

Tribunes' military role was apparently kept ill-defined and flexible, so as to provide the



A Roman military tribune (*centre*) of the late Republic. Note the horse-hair plume on the helmet, bronze muscle cuirass, mantle, sash indicating knightly rank, *pteruges*. Detail from bas-relief on the Altar of Cn. Domitius Ahenobarbus, about 122 BC. Musée du Louvre, Paris

legion commander with a small group of senior officers to carry out special tasks. Tribunes could be asked to command detachments of one or more cohorts; command specialist units, such as a flotilla; lead special operations; supervise fortification projects or the collection of supplies. In a pitched battle scenario, the available evidence does not permit a clear picture of a tribune's role. For example, Caesar relates (57 BC): "Noticing that the 7th legion, which was nearby, was also under heavy pressure, Caesar ordered the military tribunes to gradually join together the two legions [the 7th and the 12th] and form a square formation, so that they could advance against the enemy in any direction."^[177] Or again (52 BC): "Caesar ordered the trumpeters to sound the retreat and the 10th legion, which was with him, immediately halted their advance. But the other legions did not hear the signal, as they were separated by a wide depression, although the legates and military tribunes did their best to hold them back, in accordance with Caesar's orders."^[178] This evidence is consistent with two possible battle-roles for tribunes. A tribune may have played a formal role in command of a sector of the legion's battle-line, perhaps in command of a pair of cohorts (so that the 5 tribunes would cover all 10 of the legion's cohorts). Alternatively, tribunes may have accompanied the *legatus* around the field, ready to convey his orders to particular senior centurions, or to assume command of a particular sector of the line at the behest of the *legatus*. In either case, as Roman knights, tribunes would move around the battle-field on horseback, not on foot like the centurions, and they would generally remain outside the fray, in order to maintain a strategic overview of the field.



Modern re-enactor wearing replica equipment of a Roman military tribune of the imperial era. Note plumed, engraved helmet, bronze muscle cuirass, red mantle, red sash tied over cuirass indicating equestrian rank, *pteruges*. Under his tunic, the tribune wears the knee-length- riding-breeches worn by all mounted men to avoid chafing on the legs. The imperial tribune's equipment was virtually unchanged since Republican times (see above)

There is no evidence regarding the pay of military tribunes. But since they ranked on a level with the commanders of auxiliary regiments, who were paid ca. 50 times more than rankers, it is safe to assume that tribunes were paid a similar multiple of legionary's pay. Tribunes' pay would in any case have fallen somewhere between the 16-multiple of centurions and the 70-multiple of *legati*.

The legion's third officer was the *praefectus castrorum*, a post mostly filled by former chief centurions. These would typically be in their 50's, having earned their equestrian status by a lifetime of experience at the sharp end of legionary activity. In the absence of the *legatus*, they would normally deputise for them, under the nominal command of the *laticlavus*. From the time of Gallienus, these officers were routinely placed in command of their legion. The role of the *praefectus* was primarily that of quartermaster, in charge of the legion's camps and supplies, but also extended to advising the *legatus* on all manner of military operations.^[179]

The legate's nominal second-in-command was the single military tribune of senatorial rank attached to the legion, the *laticlavus* (literally: "broad-banded", referring to the wide stripe men of senatorial rank wore on their *tunica*). Typically the son of a senator (sometimes the legate's own son), and aged in his early twenties, he was performing his military service before seeking election as *quaestor* and thereby gaining a seat in the Senate (for which the minimum age was 25 years).^[18] His lack of military experience did not prevent him leading important combat missions. In the Roman social system, his high birth would have commanded the automatic respect of even the most experienced commoner.

The commander of an imperial legion was known as the *legatus legionis*. He was typically a senator of praetorian rank i.e. he had held the post of praetor, implying that he would normally be in his mid-30's. His military experience would be limited to that gained as serving in his early twenties as *tribunus laticlavus*. As a consequence, he would rely heavily on the advice of his enormously experienced *praefectus castrorum*, who was his *de facto* executive officer, despite being outranked by the *laticlavus*.^[180] The evidence suggests that a *legatus* would be paid ca. 70 times a ranker's salary.^[74]

Auxilia

In the early Julio-Claudian period, the commanders of the auxiliary units (*praefecti auxiliorum*) were often senior centurions and so ranked below the legionary tribunes. The position changed under Claudius, who restricted command of auxiliary regiments to men of equestrian rank. Furthermore, an equestrian military *cursus honorum* became established, known as the *tres militiae* ("three commands"), each held for 3–4 years: command of an auxiliary cohort, followed by military tribune of a legion, followed by command of an *ala*. These reforms had the effect of elevating *praefecti* to the same rank as legionary tribunes. Under Hardian, a fourth *militia*, command of a double-strength *ala milliaria* was established for especially proficient officers.

It appears that in the 2nd century, the majority of auxiliary prefects were still of Italian origin.^[181] In contrast, the evidence for the 3rd century is that Italians provided less than a third of prefects.^[182]

The pay of a *praefectus* of an auxiliary regiment in the early 2nd century has been estimated at over 50 times that of a *miles* (common soldier).^[99] (This compares to a full colonel in the British Army, who is currently paid about 5 times a private's salary).^[183] The reason for the huge gap between the top and the bottom of the pyramid is that Roman society was far more hierarchical than a modern one. A *praefectus* was not just a senior officer. He was also a Roman citizen (which most of his men were not) and, as a member of the equestrian order, an aristocrat. The social gulf between the *praefectus* and a *peregrinus* soldier was thus immense, and the pay differential reflected that fact.

Army medical services

The Roman army had a strong interest in looking after the health of its effectives and developed a sophisticated medical service, based on the best medical knowledge and practice of the ancient world (i.e. Greek medicine). The Roman army's medics were highly skilled and possessed enormous practical experience. Although their knowledge was entirely empirical, not analytical, their practices were rigorously tried-and-tested on the battlefield and thus more effective than those available to most armies before the 19th century.^[184] (Roman army medics were, for example, far more competent than the "quacks" of the 17th and 18th centuries with their lethal practices such as bleeding).

As with much of the imperial army's organisation, it was Augustus who, drawing on the evolved but *ad hoc* practices of the Republican army, established systematic medical services for the army, with a formal medical hierarchy and the construction of large, fully staffed and well-supplied military hospitals (*valetudinaria*) in legionary bases e.g. the fully excavated hospital at *Castra Vetera* (Xanten, Rhineland).^[185]

In overall charge of the legion's medical staff and services was the legion's executive officer, the *praefectus castrorum*.^[186] Directly under him was the *optio valetudinarii*, or director of the hospital in the legionary fortress, who would have overall charge of its administration and staff.^[187] However, the clinical head of the legion's medical service was the chief physician, called simply the *Medicus* (the capital "M" here is used to distinguish from several other ranks of *medicus*). Most often an ethnic-Greek from the eastern part of the Empire, the *Medicus* was generally a highly qualified practitioner, occasionally even a published academic. The most notable example is Pedanius Dioscorides, an army surgeon in the time of Nero, who published *Materia Medica*, which remained for centuries the standard textbook on medicine.^[186] The rank of the *Medicus* is uncertain, but was probably on a par with the military tribunes i.e. equestrian. In many cases, the *Medicus* served a short commission, in the role of senior medical consultant, and then returned to civilian life.^[187]

Reporting to the chief physician were 10 *medici ordinarii*, qualified medics who were charged with the care of the men of each cohort. These held the rank of centurion. These were trained to handle the whole range of troops' medical problems, but specialists are attested e.g. *medicus chirurgus* (surgeon) and a *medicus ocularis* (ophthalmologist) in the *classis Britannica* (Channel fleet). Underneath the *ordinarii* were medical orderlies, some of whom held the rank of *principales*, the rest as *milites immunes*. The latter included *capsarii* (wound-dressers, from *capsa*, a type of box in which they carried bandages) and *seplasarii* ("ointment-men"), who administered medicines.^[186]

Auxiliary regiments had their own medics, although on a smaller scale than a legion's. Because of the smaller size of units, there was no equestrian chief physician, but a *medicus ordinarius*. Also attested are medics who ranked as *principales*, including a *veterinarius* in charge of animal welfare, as well as *immunes* on the bottom rung.^{[186][188]}

From Greek medical science, Roman army medics inherited a wide knowledge of the medicinal properties of plants and herbs e.g. centaury, which was effective in healing wounds and eye diseases. Forts received regular supplies of medicines, and medics also composed herbal remedies themselves. Remains of at least 5 medicinal plants have been found in fort sites, suggesting that herb-gardens were cultivated inside fort precincts.^[189]

On the battlefield, medics and orderlies would be on hand behind the lines to treat injured soldiers on the spot. Using a wide range of sophisticated surgical instruments, medics would promptly remove extraneous bodies such as arrow- and spear-heads, clean and disinfect wounds using clean water and medicated wine or beer and stitch them. Orderlies would then bandage them. Speed in cleaning, closing and bandaging the wound was critical, as, in a world without antibiotics, infection was the gravest danger faced by injured troops, and would often result in a slow, agonising death.^[184]

Equipment

The basic equipment of an imperial foot-soldier was essentially the same as in the manipular Roman army of the Republic: metal armour cuirass, metal helmet, shield and sword.^[190] However, specially protective armour - the *lorica segmentata* and the *scutum*, a rectangular shield - was developed for legionaries, although apparently not made available to auxiliaries.

Weapons manufacture

In the 2nd century, there is evidence of *fabricae* (arms factories) inside legionary bases and even in the much smaller auxiliary forts, staffed mainly by the soldiers themselves.^[191] But, unlike for the Late Roman army of the 4th century onwards, there is no evidence, literary or archaeological, of *fabricae* outside military bases and staffed by civilians during the Principate (although their existence cannot be excluded, as no archaeological evidence has been found for the late *fabricae* either).

Armour

Lorica segmentata: Modern tests have shown that this *lorica* provided better protection to weapon-blows and missile-strikes than the other types of metal armour commonly used by Roman troops, chain-mail (*hamata*) or scale (*squamata*), being virtually impenetrable by ancient weapons. However, historical re-enactors have found replicas of the *lorica* uncomfortable due to chafing and could only wear them for relatively short periods. It was also more expensive to manufacture and difficult to maintain due to its complex design of separate strips held together by braces and hooks.

The bas-reliefs of Trajan's Column, a monument erected in 113 in Rome to commemorate the conquest of Dacia by Emperor Trajan (r. 97–117), are a key source for Roman military equipment. Auxilia are generally shown wearing, chain-mail or simple leather corslets, and carrying oval shields (*clipei*). Legionaries are depicted wearing *lorica segmentata* at all times (whether in combat or in other activities, such as construction) and with curved rectangular shields.^[115] But the figures in Trajan's Column are highly stereotyped, in order to distinguish clearly between different types of troops.^[192] On another Trajanic monument, the Adamclisi Tropaeum, the *lorica segmentata* does not appear at all, and legionaries and auxilia alike are depicted wearing either chain-mail or scales. There is general recognition that the Adamclisi monument is a more accurate portrayal of normality, with the *segmentata* used rarely, maybe only for set-piece battles and parades.^[193] It has been suggested that the *lorica* may have been used by auxiliaries also. But there is no firm evidence for this. Traces of this type of armour have been found in forts in Raetia from a time when no legions were stationed in the province.^[194] But these may simply have been left behind by legionaries on temporary detachment. Furthermore auxilia are nowhere depicted wearing such armour.^[100]

The provision of more protective and expensive armour to legionaries was probably due to non-military reasons: the army was highlighting their social superiority, just as it did with higher pay. During the 3rd century, when all *peregrini* were granted citizenship, and therefore legionaries lost their social superiority, the *lorica segmentata* and the rectangular shield disappeared.^[195]



Historical re-enactor showing replica *gladius* (Pompeii type). He is also wearing replica equipment of late 1st-century legionary (but wearing a chain-mail cuirass instead of *lorica segmentata*)

During the 3rd century, the *segmentata* appears to have been dropped and troops are depicted wearing chain mail (mainly) or scale, the standard armour of the 2nd century auxilia. Officers generally seem to have worn bronze or iron cuirasses, as during the Republic, together with traditional *pteruges*.^[196]

Helmets

In the Julio-Claudian era (30 BC- AD 69), it appears that soldiers continued to use the types of helmet used by the army of the Republic since about 250 BC: the Montefortino-type and Coolus-type. From about 70 AD onwards, these were replaced by more sophisticated designs, the so-called "Imperial Italic" and "Imperial Gallic" types. The aim of these innovations was to increase protection, whilst not obstructing the soldier's senses and mobility.

The "Imperial Gallic"- type which predominated from about AD 70 onwards, is a good illustration. The helmet features hinged cheek-guards covering the largest possible part of the face without restricting the soldier's breathing, sight and shouting-range. A horizontal ridge across the front of the bowl acted both as nose- (and face)-guard and as reinforcement against downward cuts on the bowl. Ear-guards protrude from the side of the helmet, but do not obstruct hearing. A shallow neck-guard was angled to the bowl to prevent chafing against the metal cuirass.

Shields



Scutum shields, as used by the Imperial Roman army.

The legionary *scutum* (derivation: It. *scudo*, Sp. *escudo*, Fr. *ecu*; Rom. *scut*), a convex rectangular shield, appeared for the first time in the Augustan era, replacing the oval shield of the army of the Republic. Shields, from examples found at Dura and Nydam, were of vertical plank construction, the planks glued, and faced inside and out with painted leather. The edges of the shield were bound with stitched rawhide, which shrank as it dried improving structural cohesion. It was also lighter than the edging of copper alloy used in earlier Roman shields.^[197]

The *scutum* disappeared during the 3rd century. All troops adopted the auxiliary oval (or sometimes round) shield (*clipeus*).^[198]

Hand weapons

The *gladius hispaniensis* (adopted by the Romans from an Iberian design, probably during the First Punic War (260-41 BC), was a short (median length: 460 mm) stabbing-sword that was designed for close-quarters fighting. It was standard for the Principate infantry (both legionary and auxiliary). The cavalry used the *spatha* (It. *spada*, French *épée*, Sp. *espada*, Rom. *spada*), a longer (median length: 760 mm) sword that allowed longer reach and easier swing.^[51] The Roman Legions also carried a small side arm called a *pugio*.

Missiles

Legionaries were equipped with the developed version of the *pilum*, a heavy javelin (throwing-spear) that had been used by Roman soldiers since around 250 BC. This weapon had lead counterweights to assist stability in flight and penetration; a barbed point to prevent withdrawal from flesh or shield; and a buckling shank to prevent it being thrown back. During the Republic, legionaries had been equipped with two of these, but now appear to have carried only one. Modern tests have shown the effective range of these javelins to be about 15m. It appears that auxiliaries were not equipped with a *pilum*, but with a light spear.

Archers of the imperial army were equipped with the recurved composite bow as their standard. This was a sophisticated, compact and powerful weapon, suitable for mounted and foot archers alike (the cavalry version being more compact than the infantry's).



Re-enactors dressed as legionaries of the Imperial Roman army. They are carrying *pila*, the standard heavy javelin of the era.

Clothing

In the 1st and 2nd centuries, a Roman soldier's clothes consisted of a single-piece, short-sleeved tunic whose hem reached the knees and special hob-nailed sandals (*caligae*). This attire, which left the arms and legs bare, had evolved in a Mediterranean climate and was not suitable for northern Europe in cold weather. In northern Europe, long-sleeved tunics, trousers (*bracae*), socks (worn inside the *caligae*) and laced boots were commonly worn in winter from the 1st century. During the 3rd century, these items of clothing became much more widespread, apparently common in Mediterranean provinces also.^[199] However, it is likely that in warmer weather, trousers were dispensed with and *caligae* worn instead of socks and boots.^[200]

Logistics and supply

A critical advantage enjoyed by the imperial army over all its foreign enemies except the Parthians was a highly sophisticated organisation to ensure that the army was properly supplied on campaign. Like their enemies, the army would rely as much as possible on foraging for supplies when campaigning on enemy soil, but this was impractical in winter or even in summer if the land was barren or the enemy employed "scorched-earth" tactics. On Roman territory, foraging was obviously undesirable. The empire's complex supply organisation, as set up under Augustus, enabled the army to campaign in all seasons and in enemy territory. The quantities of food supplies required by an army on campaign were enormous and would require lengthy and elaborate planning for major campaigns. An imperial legion of 5,500 men would require a minimum of 12.5 tonnes of grain-equivalent *every day*.^[201] Thus, Agricola's Caledonian task-force at the Battle of Mons Graupius, around 25,000-strong, would have required, ca. 5,000 tonnes of grain-equivalent for three months' campaigning (plus fodder for the horses and pack-animals).



Supplies for Trajan's first invasion of Dacia (AD 101) being unloaded from fluvial freighters at a dock on the river Danube. An auxiliary soldier (left) stands guard. Detail from Trajan's Column, Rome

Such vast cargoes would be carried by boat as far as possible, by sea and/or river, and only the shortest possible distance overland. That is because transport on water was in ancient times much faster and more economical than on land (as it remains today, although the differential is smaller).^[202] Land transport of military supplies on the *cursus*

publicus (imperial transport service) was typically on wagons (*angariae*), with a typical payload of 650 kg, drawn by two pairs of oxen.^{[203][204]} During the Principate, large vessels of several hundred tonnes' capacity were not uncommon.^[205] A vessel of, say 200 tonnes' capacity, with a 20-man crew, could carry the same load as ca. 300 wagons (which required 300 drivers and 1,200 oxen, plus pay for the former and fodder for the animals). A merchant ship would also, with a favourable wind, typically travel three times faster than the typical 3 km/h (**unknown operator: u'strong'** mph) achieved by the wagons and for as long as there was daylight, whereas oxen could only haul for at most 5 hours per day. Thus freighters could easily cover 100 km (**unknown operator: u'strong'** mi) per day, compared to ca. 15 km (**unknown operator: u'strong'** mi) by the wagons.^{[206][207]} However, freighters of this capacity were propelled by square sails only and could progress only if there was a following wind, and could spend many days in port waiting for one. (However, coastal and fluvial freighters called *actuariae* combined oars with sail and had more flexibility, but smaller capacity, typically 30–40 tonnes).^[202] Maritime transport was also completely suspended for at least four months in the winter (as stormy weather made it too hazardous) and even during the rest of the year, shipwrecks were common.^[208] Even so, surviving shipping-rates show that it was cheaper to transport a cargo of grain by sea from Syria to Lusitania (i.e. the entire length of the Mediterranean – and a ways beyond – ca. 5,000 km) than just 110 km (**unknown operator: u'strong'** mi) overland.^[206]

Rivers constituted the vital supply arteries of the army. The establishment of the Rhine-Danube line as the European border of the empire was thus primarily due to its value as a major fluvial supply route, rather than its defensibility. The Rhine and Danube rivers were dotted with purpose-built military docks (*portus exceptionales*).^[209] The protection of supply convoys on the rivers was the responsibility of the fluvial flotillas (*classes*) under the command of the governors of provinces along the rivers: by AD 68, and perhaps from the time of Augustus, flotillas had been established on the Rhine (*classis germanica*) and Danube (*classis Histrica*).^[210]

A grain cargo would first be transported from its region of origin (e.g. from the northern Black Sea region or Egypt) by large seagoing freighter to a port at the mouth of a navigable river (e.g. the Danube). There it would be transferred to a number of smaller-capacity fluvial *actuariae*, which would transport it up-river to the grain-dock of a legionary fortress. The cargo would then be stored in a purpose-built granary within the fortress, where it would be safe from contamination or decay until it was needed. At the start of the campaigning season, it would be transported, still by river if possible, otherwise overland on wagons, to the tactical base used for operations. From there the campaigning legion would haul its own supplies to its current marching-camp. This was accomplished by a legion's mule-train of ca. 1,400 mules. (In addition, each of the legion's 600 *contubernia* - 8-man platoons who shared a campaign-tent - possessed one or two mules to carry its tent and other equipment).^[211]

The driving of the supply mule-train, and the care of the pack-animals, was in the hands of the legion's *calones*, professional camp-servants, most likely also on the army pay-roll, who accompanied the unit everywhere on campaign. These men were armed as light infantry and given basic combat-training, so that they could protect the mule-train and, in emergencies, the marching-camp itself. 200–300 *calones* would accompany each legion. (*Calones* were distinct from the personal servants - slaves or freedmen - whom officers generally took with them on campaign).^[212]

Fortifications

Beyond marching- and training-camps, the imperial army constructed various types of permanent fortifications: the legionary fortress (*castra legionaria*), designed to accommodate an entire legion of 5,000–6,000 men; the auxiliary fort (*castellum*), which normally held an auxiliary regiment of ca. 500 men; smaller forts for detachments; watch-towers and signal-stations; border barriers ditches or ramparts; city walls; infrastructure, such as bridges, grain and arms depots, etc.

In the 1st century, army fortifications predominantly consisted of earthen ramparts, topped by wooden parapets. Using commonly available materials, these were cheap and quick to construct and provided effective protection, especially from tribal enemies with no artillery or siegecraft skills. However, this type of fortification required

constant maintenance: the rampart was vulnerable to soil-slides caused by torrential downpours and to the action of burrowing animals. The wooden parapet was vulnerable to rot, and to heavy missiles launched from catapults and, in dry conditions, to incendiary missiles. From around AD 50, when the empire's borders had begun to stabilise, the army started building fortifications of stone. These were much more expensive and time-consuming to erect, but were invulnerable to most natural threats (except earthquakes), provided much better protection against missiles and needed far less maintenance (many, such as Hadrian's Wall, would still be largely intact today if they had not been pillaged for their dressed stones over the centuries). However, earth-and-wood fortifications remained an important part of the empire's defences until ca. AD 200, when stone fortifications became the norm.

Strategy and tactics

What is known about the tactics of the Imperial Era is largely conjectural. There is no surviving manual that describes in great detail any tactics that were utilized in this period, nor are the existing accounts of battles particularly helpful due to vagueness^{[213] [214]}.

Large, open battles in the field were somewhat infrequent during this time. The armies were often occupied with counter-guerilla actions which led to a siege of the stronghold of the enemy. During sieges, the Roman Legions came to rely on missile power. This can be seen during the Jewish Revolt. In the siege of Jotapata in AD 68, Vespasianus or Vespasian was said to have at least 350 artillery pieces along with 7,000 auxiliary archers. He used these to bombard the enemy fortifications to start each day's attack. When Titus, Vespasianus' son, laid siege to the city of Jerusalem two years later, he reportedly had 700 pieces of artillery^[215].

This multitude of missiles helped cover the legions advancing towards the walls of the besieged settlements. The famous testudo ("tortoise") formation was utilized to protect the advancing legions. This was done by having the front rank hold out their shields in such a way as to overlap the shields of the men next to them and protect most of the body. The ranks behind the first rank raised their scutum above their own head so that it covered the man in front of him. These shields overlapped those in front of them, creating a shield roof over the entire unit's head. The soldiers at the end of each rank held out their shield sideways to complete the shell of shields. This and other formations were used to assault walls^[216].

When there were open field battles, the Roman usually made use of a multiple line system in order to have reserves available. Reserves were important factors in battle as the reinforcements both increased morale of those already in the front lines and also brought fresh troops to continue to push the enemy back. The leaders of the army rode behind the front line to see when and where to commit the reserves. They could reinforce wavering units to prevent a penetration in the main battle line or help a unit that was beating back the enemy make a breakthrough. This had to be done carefully as committing reserves too early would not achieve any progress, while tiring the troops engaged in prolonged fighting. Waiting too long to commit reserves could cause the first line to collapse and start spreading panic throughout the entire army^{[217] [218]}.

Battles started with both lines marching towards each other to clash in hand to hand combat. In contrast with their foes, who often tried to demoralize their enemies with shouts and other loud noises, the Romans kept quiet as they marched toward their onrushing foes. When the opponents came within a range of about 10 to 15 meters, or 30 to 50 feet, each legionnaire would throw his pilum at the enemy formation and charge accompanied by loud shouts and cornu trumpets. The double shock of the sudden change in demeanor of the Romans and the volley of pila would often cause great damage to the enemy morale. If the Romans succeeded in breaking the enemy, they would aggressively pursue the fleeing army to inflict as many casualties as possible. This pursuit of the enemy was led by the cavalry. The idea was to force the enemy into submission or cause them to be fearful of future battles with the Romans^[219].

Unit names, titles, standards and decorations

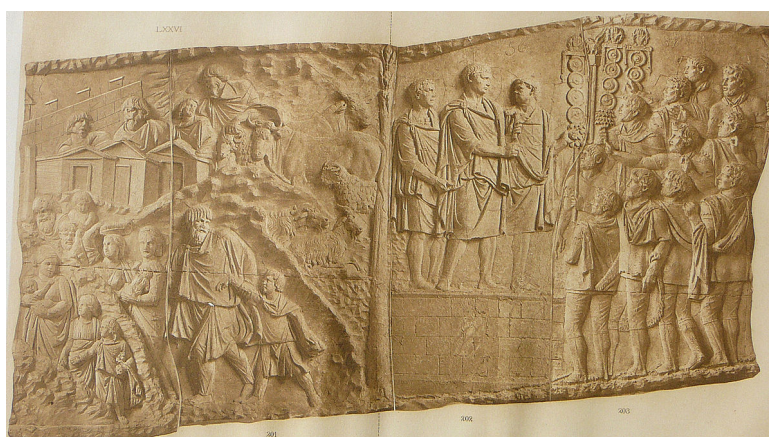
Unit names and numbers

The numbering of the legions is confusing. Several legions shared the same number with others. Augustus numbered the legions he founded himself from I, but also inherited numbers from his predecessors. Each emperor normally numbered the legions he raised himself starting from I. However, even this practice was not consistently followed. For example, Vespasian kept the same numbers as before for legions he raised from disbanded units. Trajan's first legion was numbered XXX because there were 29 other legions in existence at the time it was raised; but the second Trajanic legion was given the sequential number II. XVII, XVIII and XIX, the numbers of the legions annihilated in the Teutoburg Forest, were never used again. (These three legions are without titles, suggesting that in disgrace their titles may have been deliberately forgotten or left unmentioned). As a result of this somewhat chaotic evolution, the legion's title became necessary to distinguish between legions with the same number. The geographical titles indicate (a) the country a legion was originally recruited e.g. *Italica* = from Italy or (b) peoples the legion has vanquished e.g. *Parthica* = victorious

over the Parthians. Legions bearing the personal name of an emperor, or of his *gens* (clan) (e.g. *Augusta*, *Flavia*) were either founded by that Emperor or awarded the name as a mark of special favour.



Roman military standards. The standards with discs belong to *centuriae* of the legion. Note (*second from right*) the legion's *aquila*. The standard on the right probably portrays a She-wolf (*lupa*), a Roman national symbol. (This was the emblem of *Legio VI Ferrata*, a legion then based in Judaea, a detachment of which is known to have fought in Dacia). Detail from Trajan's Column, Rome



(*right panel*): Roman military standards. Three are *centuria* standards (note wreathed palm at top, disks). The second from left is a legionary *aquila*. Detail from Trajan's Column, Rome

The nomenclature of the great majority of auxiliary regiments followed a standard configuration: unit type, followed by serial number, followed by name of the *peregrini* tribe (or nation) from whom the regiment was originally raised, in the genitive (possessive) plural case e.g. *cohors III Batavorum* ("3rd Cohort of Batavi"); *cohors I Brittonum* ("1st Cohort of Britons"). Some regiments combine the names of two *peregrini* tribes, most likely after the merger of two previously separate regiments e.g. *ala I Pannoniorum et Gallorum* ("1st Wing of Pannonians and Gauls"). A minority of regiments are named after an individual, mostly after the first prefect of the regiment e.g. *ala Sulpicia* (presumably named after a prefect whose middle (*gens*) name was Sulpicius). The latter is also an example of regiments that did not have a serial number.^[220]

Titles

Legions often carried several titles, awarded after successive campaigns, normally by the ruling emperor e.g. *XII Fulminata* also boasted: *paterna* ("senior"), *victrix* ("victorious"), *antiqua* ("venerable"), *certa constans* ("reliable, steadfast") and *Galliena* ("the emperor Gallienus's favourite"). *Pia fidelis* ("dutiful, loyal"), *fidelis constans* and others were titles awarded to several legions, sometimes several times to the same legion.

Auxiliary regiments were often rewarded for meritorious service by the grant of an honorific title. The most sought-after title was the prestigious *c.R.* (*civium Romanorum* = "of Roman citizens"). In the latter case, all the regiment's members at the time, but not their successors, would be granted Roman citizenship. But the regiment would retain the *c.R.* title in perpetuity. Another common title was the *gens* name of the emperor making the award (or founding the regiment) e.g. *Ulpia*: the *gens* name of Trajan (Marcus Ulpius Traianus r.98–117). Other titles were similar to those given to the legions e.g. *pia fidelis* (*p.f.* = "dutiful and loyal").^[221]

Standards

Each tactical unit in the imperial army, from *centuria* upwards, had its own standard. This consisted of a pole with a variety of adornments that was borne by dedicated standard-bearers who normally held the rank of *duplicarius*. Military standards had the practical use of communicating to unit members where the main body of the unit was situated, so that they would not be separated, in the same way that modern tour-group guides use umbrellas or flags. But military standards were also invested with a mystical quality, representing the divine spirit (*genius*) of the unit and were revered as such (soldiers frequently prayed before their standards). The loss of a unit's standard to the enemy was considered a terrible disgrace, which could only be fully expunged by its recovery.

The standard of a *centuria* was known as a *signum*, which was borne by the unit's *signifer*. It consisted of a pole topped by either an open palm of a human hand or by a spear-head. The open palm is suggested to have derived from the days when the smallest tactical unit was called a maniple (*manipulus* = "handful"). The poles were adorned with 2 to 6 silver discs (the significance of which are uncertain). In addition, the pole would be adorned by a variety of cross-pieces (including, at bottom, a crescent-moon symbol and a tassel). The standard would normally sport a cross-bar with tassels.^[222]

The standard of a Praetorian cohort or an auxiliary cohort or *ala* was known as a *vexillum* or banner. This was a square flag, normally red in colour, hanging from a crossbar on the top of the pole. Stitched on the flag would be the name of the unit and/or an image of a god. An exemplar found in Egypt bears an image of the goddess Victory on a red background. The *vexillum* was borne by a *vexillarius*. A legionary detachment (*vexillatio*) would also have its



Modern reenactors of Roman legionaries parade with replicas of various standards. From left to right: *signum* (spear-head type), with 4 discs; *signum* (wreathed-palm type), with 6 discs; *imago* of ruling emperor; legionary *aquila*; *vexillum* of commander (*legatus*) of *Legio XXX Ulpia Victrix*, with embroidered name and emblem (*Capricorn*) of legion

own *vexillum*. Finally, a *vexillum* traditionally marked the commander's position on the battlefield.^[222] The exception to the red colour appears to have been the Praetorian Guard, whose *vexilla*, similar to their clothing, favoured a blue background.

From the time of Marius (consul 107 BC), the standard of a legion was its *aquila* ("eagle"). The pole was surmounted by a sculpted eagle of solid gold, or at least gold-plated silver. Otherwise the pole was unadorned, save by metal thunderbolts under the eagle. No exemplar of a military eagle has ever been found.^[222] The eagle was borne by the *aquilifer*, the legion's most senior standard-bearer. So important were legionary eagles as symbols of Roman military prestige and power, that the imperial government would go to extraordinary lengths to recover those captured by the enemy. This would include launching full-scale invasions of the enemy's territory, sometimes decades after the eagles had been lost e.g. the expedition in 28 BC by Marcus Licinius Crassus against Genucla (Isaccea, near modern Tulcea, Rom., in the Danube delta region), a fortress of the Getae, to recover standards lost 33 years earlier by Gaius Antonius, an earlier proconsul of Macedonia.^[223]

Under Augustus, it became the practice for legions to carry portraits (*imagines*) of the ruling emperor and his immediate family members. An *imago* was usually a bronze bust carried on top of a pole like a standard by an *imaginifer*.

From around the time of Hadrian (r. 117-38), some auxiliary *alae* adopted the dragon-standard (*draco*) commonly carried by Sarmatian cavalry squadrons. This was a long cloth wind-sock attached to an ornate sculpture of an open dragon's mouth. When the bearer (*draconarius*) was galloping, it would make a strong hissing-sound.

Decorations

The Roman army awarded a variety of individual decorations (*dona*) for valour to its legionaries. *Hasta pura* was a miniature spear; *phalerae* were large medal-like bronze or silver discs worn on the cuirass; *armillae* were bracelets worn on the wrist; and torques were worn round the neck, or on the cuirass. The highest awards were the *coronae* ("crowns"), of which the most prestigious was the *corona civica*, a crown made oak-leaves awarded for saving the life of a fellow Roman citizen in battle. The most valuable award was the *corona muralis*, a crown made of gold awarded to the first man to scale an enemy rampart. This was awarded rarely, as such a man hardly ever survived.^[224]

There is no evidence that auxiliary common soldiers received individual decorations like legionaries, although auxiliary officers did. Instead, the whole regiment was honoured by a title reflecting the type of award e.g. *torquata* ("awarded a torque") or *armillata* ("awarded bracelets"). Some regiments would, in the course of time, accumulate a long list of titles and decorations e.g. *cohors I Brittonum Ulpia torquata pia fidelis c.R.*^[221]

Everyday life

Soldiers generally spent only a fraction of their working lives on campaign. Most of their time was taken up with a wide range of other military and non-military duties.

Fort duties

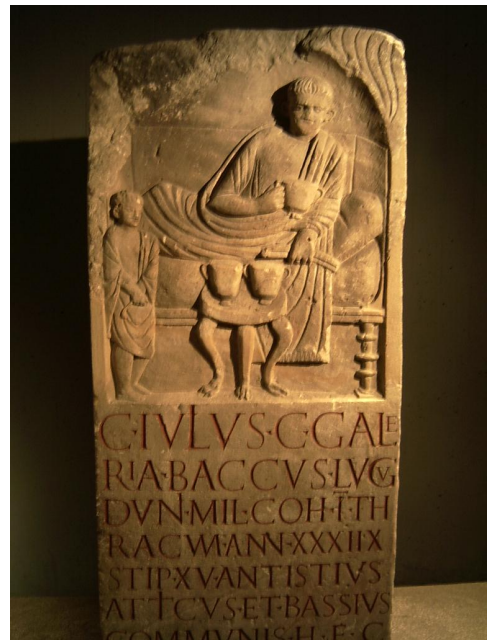
Non-military duties on-site included the routine chores of fort life (cleaning, washing clothes and equipment, feeding horses and pack-animals) and working in the fort's *fabrica* (workshop where armour, weapons and other equipment were made and repaired).^[225] The army demanded high standards of personal hygiene and cleanliness from its troops, and provided them with the necessary sanitary facilities. Wells were excavated inside forts and aqueducts built to nearby springs to provide a continuous and plentiful supply of fresh, drinkable water. Latrines in the fort were continually flushed by gravity-flowing water, and elaborate drains and sewers would discharge the raw sewage into nearby streams and rivers.^[226]

An essential and burdensome activity was the procurement of the vast quantities of supplies that the regiment needed. For raw materials, the army purchased what it could locally, and imported the rest from elsewhere. The men of *I Hispanorum veterana* went as far afield (from Moesia Inferior) as Gaul to procure clothing and grain.^[227] For manufactured goods, the regiments would produce some of their needs themselves e.g. evidence of leather-tanning and beer-brewing at Vindolanda and nearby Catterick fort.^[228] The tablets attest the procurement of cereals, beer, animal fodder; manufactured goods such as clothing, nails and vehicle parts; raw materials such as stone, iron, lead, timber, animal hides.^[229]

Military duties

Routine military duties included patrolling, guard-duty, and weapons training. These were not limited to the regiment's base fort and its vicinity only: the Vindolanda tablets show that detachments of the unit could be deployed in several different locations at once: one *renuntia* shows a detachment of nearly half the effectives of *cohors I Tungrorum* deployed at another fort.^[225] A papyrus *renuntia* for *cohors I Hispanorum veterana equitata* in Moesia Inferior (AD 105) reports a cavalry *turma* on a scouting mission (*exploratum*) across the Danube.^[230]

As in today's armies, each day would begin with a roll-call parade (probably called a *numeratio*).^[231] Soldiers were kept at a high level of physical fitness by daily exercises and 20-mile (**unknown operator: u'strong'** km) marches typically every 10 days, as well as regular, full-scale training-manoeuvres and mock-skirmishes. The latter would often be inspected by a high military official: the *legatus legionis*, the provincial governor, or even the emperor himself.^[230] Some forts contained drill-halls, permitting all-weather training.^[232] Combat-training and exercises were a central part of a soldier's weekly routine. One tablet probably contains a scathing report by an officer (himself probably a Rhineland German) about the progress of young local trainee cavalrymen in the *cohors equitata*: "on horseback, too many of the pathetic little Brits (*Brittunculi*) cannot swing their swords or throw their javelins without losing their balance".^[233]



Tombstone of the auxiliary foot soldier **Caius Iulius Baccus**, a Roman citizen from Lugdunum (Lyon, France). He probably died while in still a soldier at age 38 after 15 years' service. In view of his incomplete service, he may have been a citizen from birth. His regiment was the **Cohors II Thracum** and he was still a *miles* (common soldier) when he died. Unlike most military tombstones, this one portrays the deceased out of uniform, enjoying a cup of wine at his home (which is presumably how his friends, who arranged the memorial, wished to remember him).
Römisch-Germanisches Museum, Cologne, Germany

Parades were another important part of a regiment's routine. Occasional parades included religious rites and purely military parades such as the *rosaliae signorum* (decoration of the standards) and *demissio*, when veterans were discharged after completing their term of service and awarded their diplomas of Roman citizenship.^[234]

Communications between forts, legionary fortresses and the provincial capital were critical. Despatch-riders (*dispositi*), normally *equites cohortales*, were stationed at *mutationes* (road-side stations where horses could be changed) to form relays to carry messages rapidly.^[230] Relays of fresh riders and horses, careering at full gallop, could maintain an average speed of 20 miles per hour (32 km/h). Thus an urgent despatch from the legionary base at *Eboracum* (York) to the provincial governor's headquarters in London, a distance of 200 miles (300 km), a journey of about ten days for a single rider and mount, could be delivered in just ten hours.^[235] When messages were even more urgent, visual signals were used. Strings of signal-stations in prominent locations would transmit messages using parabolic mirrors during the day and fire by night.

Police duties

Off-site duties included many routine police and even administrative tasks. Provincial governors had only a minimal administrative staff at their disposal, and no regular police force.^[236] They therefore relied on their troops for many such duties e.g. escorting the governor or other senior officials, patrolling highways, assisting and escorting tax collectors and military supply wagons, carrying official despatches, arresting wanted men.^[237] Thus a *renuntia* shows a detachment of 46 men of *I Tungrorum* on escort duty (*singulares*) with the provincial governor's staff.^[225]

Highways were routinely garrisoned and patrolled along their entire length. Small detachments of troops would be on duty at the way-stations: *mutationes* and *mansiones* (large wayside inns, with accommodation, stables, taverna and baths).^[238] These stations may well be the 6 unidentified locations where small detachments of ca. 10 men, each under a centurion, were deployed according to a *renuntia* of *cohors I Tungrorum*.^[239] Troops on highway duty would check the identities and cargoes of road users as well as escort the vehicles of the *cursus publicus* (imperial transport service). This service was concerned with the transportation of official personnel and payloads: senior officials, tax revenues and wages for the troops, military supplies (usually conveyed in convoys of ox-drawn wagons) and official post. Such vehicles, especially the money-cars, were vulnerable to highway robbers e.g. one *eques* (cavalryman) of *I Hispanorum veterana* was reported killed by robbers in a *renuntia*.^[227] Troops would also assist agents of the *procurator* (the senior financial official in the province) to collect the *portorium*, an imperial toll on the carriage of goods on public roads, payable whenever the goods crossed a toll-line.^[240]

Construction

The most important non-military activity of the Roman army was construction. The army was a large workforce of fit, disciplined men which also comprised hundreds of skilled craftsmen. Troops were on regular salaries anyway, so it was cheaper for the government to use them for building projects, if the security situation in the province allowed, than to hire private contractors. In fact, soldiers spent far more of their working lives on building-sites than on campaign and it would not be a huge exaggeration to describe an imperial legion as an armed construction-gang.

Soldiers built their own forts and fortifications and other military facilities e.g. Hadrian's Wall itself was built by the army. But they also built up much of a province's Roman infrastructure: trunk



Roman legionaries building a road in Dacia during the Dacian wars (AD 101-6). Detail of bas-relief from Trajan's Column, Rome

Roman roads, bridges, docks, canals, aqueducts, entire new cities such as *coloniae* for veteran legionaries, public buildings (e.g. basilicas and amphitheatres).^[241] The army also carried out large-scale projects to increase the land available for agriculture, such as forest clearance and draining marshes (e.g. the large-scale drainage of the Fens in eastern England, which were probably developed as a huge imperial estate).^[242] The army also excavated many of the mines and quarries that produced the raw materials it needed for weapons and armour manufacture and for construction. Soldiers would supervise the slave-gangs that generally worked the mines, or mine themselves at times of urgent demand.^[243]

Most of the available evidence relates to legionary construction. The several construction-scenes on Trajan's Column show only legionaries working, with auxiliaries standing guard around them.^[244] On Hadrian's Wall, legionary stamps only have been found on building-materials, with no evidence of auxiliary involvement. Birley suggests that auxiliaries may have been used to excavate the *vallum*, a large ditch which runs parallel to the Wall, and thus would not have left stamps on building-materials.^[245] But it is also possible that auxiliary regiments were tasked with maintaining security on the border during construction. However, the Vindolanda tablets attest to construction activity by auxiliaries e.g. one tablet refers to 12 soldiers detailed to work on the construction of a bath-house (*balneum*) at Vindolanda. Another possibly refers to the construction of a bridge elsewhere.^[246]

Social life

All the Vindolanda documents are written by officers, supporting the view that many of the lower ranks may have been illiterate.^[174] The language used is always Latin, usually of a reasonable standard. Most of the authors were Gauls, Britons or Germans, whose native languages were Celtic or Germanic, yet they wrote even to their relatives in Latin.^[247] This does not mean that they could no longer speak their native tongues, simply that those tongues never developed a written form. The tablets show that the commanding officer was addressed as *domine* ("master" or "lord", due to his equestrian rank) and soldiers of the same rank as *frater* ("brother") or *collega* ("comrade").^[248] The letters show that an auxiliary soldier maintained friendships not just in his own regiment, but also in other regiments and even in the legions. Hunting was a favourite leisure activity, for the officers at least. It was more strenuous, dangerous and required far greater skill than today due to the lack of firearms: prey had to be brought down with arrows or spears.^[249]

Religion

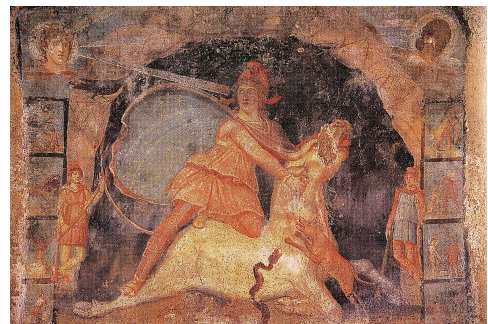
Roman religion was polytheistic and therefore readily accepted and absorbed many deities of the empire's subjects, the vast majority of whose cultures were also polytheistic. But there were limits: the Romans forbade cults whose beliefs or practices were considered incompatible with the basic tenets of Roman religion. For example, the Romans proscribed cults that practised human sacrifice, which was partly the reason why Druidism was banned under the emperor Tiberius (political considerations were also involved, namely that Druids were suspected of orchestrating native resistance to Roman rule in Gaul).^{[251][252]} Also banned was Christianity, *de facto* initially, as membership of the Christian church was not prohibited formally until the rule of Septimius Severus (197-211).^[253] A monotheistic religion, its followers refused to participate in the imperial cult, the worship of the *imagines* (cult portraits or statues) of ruling and past emperors. The cult was used by the Romans in the same way as an oath of allegiance is used by modern societies, as an affirmation of loyalty to the state. It was compulsory for all *peregrini* to make burnt sacrifice to the image of the ruling emperor at least once (certificates were issued to prove compliance). Refusal was considered treasonous and was punishable by death.^[254] Christians were also widely suspected, through a misunderstanding of baptism and the eucharist, of practicing clandestine ritual murder of infants (by drowning) and cannibalism respectively, violating two more Roman taboos.^[251]

In theory, soldiers were only permitted to honour such non-Roman gods as had been officially approved by the *collegium pontificum* ("Board of High Priests") in Rome, which regulated the state religion. The board would assess whether a foreign cult was acceptable. If so, by the process of *interpretatio Romana*, a non-Roman god was officially annexed to a Roman god on the basis of shared characteristics^[255] e.g. Mars Toutates, the assimilation of a Gallic deity to the Roman god of war.^[256] In practice, off-duty soldiers were allowed to follow whatever cults they pleased, providing they were not specifically prohibited. Many surviving military dedications, especially those offered by the lower ranks, are to non-Roman deities alone.^[257]

Soldiers were, however, required to participate in a number of official Roman religious rites held by their regiment at regular times in the year. These included religious parades in honour of the most important Roman gods, especially Jupiter, the supreme god of the Roman pantheon: many altars and tombstones dedicated by the military are headed with the letters IOM (*Iovi Optimo Maximo*: "to Jupiter the Best and Greatest"); Mars, the god of war; and Minerva, a goddess also associated with war. These parades were probably accompanied by animal sacrifices and feasting. Another important regimental cult was emperor-worship. Parades were held on imperial birthdays, when the *imagines* of the ruling emperor and of deified previous emperors would be saluted and offered sacrifices by the



Bas-relief of Thracian hero. The relief is incomplete, missing the rider's lance and victim. Histria Museum, Romania



Wall painting showing Mithras slaying a bull, the central ritual act of the Mithraic cult (the tauroctony). Note Mithras' Phrygian cap, his cloak containing the celestial firmament, the serpent and the cave in which the cult act is taking place. Mithraic temples sought to reproduce a cave-like environment. The symbolism, rites and tenets of the cult are obscure.^[250] From Dura Europos, on the Euphrates, Syria

prefect of the regiment.^[258]

Outside of the regimental ceremonies, soldiers revered a vast array of deities.^[259] These can be divided into three categories: Roman gods; their own native gods, such as the Thracian hero which is often represented on the tombstones of Thracian veterans as a mounted warrior spearing a beast (or man) on the ground; and the local gods of the province in which they served, such as the cult of Coventina in Britain. Coventina was a British nymph associated with springs. Several dedications to her have been found e.g. those offered by the garrison of the auxiliary fort at Carrawburgh (on Hadrian's Wall).^[260]

From the 2nd century onwards, Eastern mystery cults, centred on a single deity (though not necessarily monotheistic) and based on sacred truths revealed only to the initiated, spread widely in the empire, as polytheism underwent a gradual, and ultimately terminal, decline. One such cult, that of Sol Invictus ("The Invincible Sun"), was designated as the official army-cult by the emperor Aurelian (r. 270-5) and remained such until the time of Constantine I (r. 312-37). However, by far the most popular among the Roman military was Mithraism, centred on a deity called Mithras. The mainstream view is that this originated in the Persian cult of Mithra, but the salient features of the Roman cult are absent in the Avesta and other Iranian evidence. It is thus possible that the Roman cult was not connected to the Iranian (except perhaps that the deity's name was borrowed) and instead originated in the eastern provinces of the empire itself, most likely in Phrygia.^[261] Mithraism was probably a medley of elements from various cults - hence its apparent adoption of a Persian deity-name, of the *taurobolium* ritual from the cult of Cybele, and of the Phrygian cap. Based on secret initiation ceremonies and rites, this cult is attested, for example, by the discovery of a Mithraeum (Mithraic temple) at Carrawburgh fort near Hadrian's Wall. Membership, according to the written evidence of dedications in Nida (Hedderheim), was not restricted according to social standing.^{[250][262]}

Christianity was much less common amongst the military until it was accorded favoured-cult status by Constantine I in the early 4th century. Nevertheless, it probably had some clandestine followers in the military during the 2nd and 3rd centuries, especially in the East, where it had spread widely.^[263] The discovery of a Christian house church with the earliest Christian paintings extant (early 3rd century) at the fortress town of Dura-Europos in Syria may indicate a Christian element in that town's garrison.^[264]

Deployment in the 2nd century

IMPERIAL ROMAN ARMY: Summary of known deployments c. AD 130^[265]

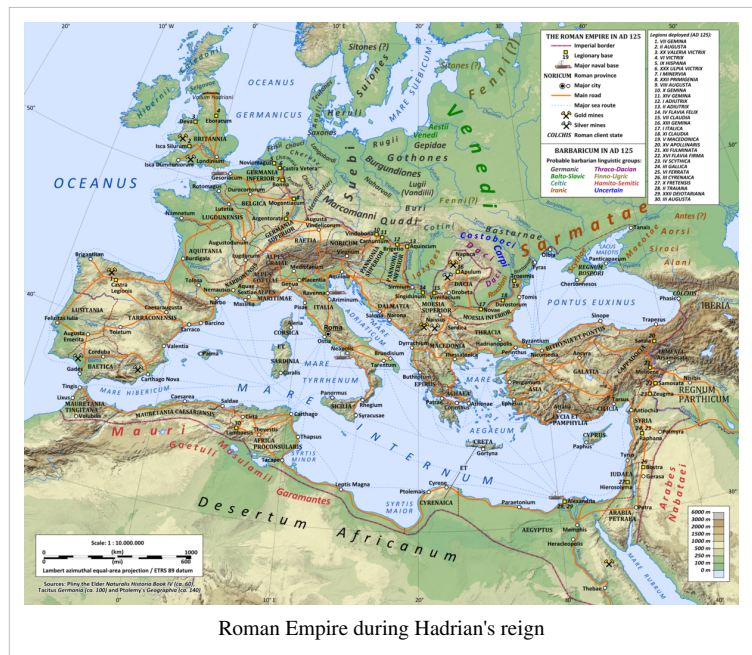
Province	Approx. modern equivalent	<i>Alae</i> (no. mill.)	<i>Cohortes</i> (no. mill.)	Total aux. units	Auxiliary infantry	Auxiliary cavalry*	No. legions	Legionary infantry	Legionary cavalry	TOTAL GARRISON
Britannia	<i>England/Wales</i>	11 (1)	45 (6)	56	25,520	10,688	3	16,500	360	53,068
<i>Rhine Frontier</i>										
Germania Inferior	<i>S Neth/NW Rhineland</i>	6	17	23	8,160	4,512	2	11,000	240	23,912
Germania Superior	<i>Pfalz/Alsace</i>	3	22 (1)	25	10,880	3,336	2	11,000	240	25,456
<i>Danube Frontier</i>										
Raetia/Noricum	<i>S Ger/Switz/Austria</i>	7 (1)	20 (5)	27	11,220	5,280	1	5,500	120	22,120
Pannonia (Inf + Sup)	<i>W Hungary/Slovenia</i>	11 (2)	21 (4)	32	11,360	8,304	3	16,500	360	36,524
Moesia Superior	<i>Serbia</i>	2	10	12	4,800	1,864	2	11,000	240	17,904
Moesia Inferior	<i>N Bulgaria/coastal Rom</i>	5	12	17	5,760	3,520	1	5,500	120	14,900

Dacia (Inf/Sup/Poroliss)	<i>Romania</i>	11 (1)	32 (8)	43	17,920	7,328	2	11,000	240	36,488
<i>Eastern Frontier</i>										
Cappadocia	<i>Central/East Turkey</i>	4	15 (2)	19	7,840	3,368	3	16,500	360	28,068
Syria (inc Judaea/Arabia)	<i>Syria/Leb/Palest/Jordan/Israel</i>	12 (1)	43 (3)	55	21,600	10,240	5	27,500	600	59,940
<i>North Africa</i>										
Aegyptus	<i>Egypt</i>	4	11	15	5,280	3,008	2	11,000	240	19,528
Mauretania (inc Africa)	<i>Tunisia/Algeria/Morocco</i>	10 (1)	30 (1)	40	14,720	7,796	1	5,500	120	28,136
Internal provinces		2	15	17	7,200	2,224	1	5,500	120	15,044
TOTAL EMPIRE		88 (7)	293 (30)	381	152,260	71,468	28	154,000	3,360	381,088

Notes: (1) Table excludes ca. 4,000 officers (centurions and above). (2) Auxiliary cavalry nos. assumes 70% of *cohortes* were *equitatae*

Analysis

- The table shows the importance of auxiliary troops in the 2nd century, when they outnumbered legionaries by 1.5 to 1.
- The table shows that legions did not have a standard complement of auxiliary regiments^[266] and that there was no fixed ratio of auxiliary regiments to legions in each province. The ratio varied from six regiments per legion in Cappadocia to 40 per legion in Mauretania.
- Overall, cavalry represented about 20% (including the small contingents of legionary cavalry) of the total army effectives. But there were variations: in Mauretania the cavalry proportion was 28%.
- The figures show the massive deployments in Britannia and Dacia. Together, these two provinces account for 27% of the total auxilia corps.



Notes

- [1] Goldsworthy (2003), p.90
- [2] Vindolanda Tablets 166-177
- [3] Mattingly (2006), p.200
- [4] Mattingly (2006), p.162
- [5] Augustus XXVIII.2
- [6] Tacitus IV.5
- [7] CAH IX 377
- [8] Tacitus *Ann.* I
- [9] Dio LX.24.3
- [10] CAH X 378
- [11] Dio LV.23.1
- [12] CAH IX 378
- [13] Duncan-Jones (1994) 37
- [14] Tacitus *Ann.* I.17
- [15] Tacitus *Ann.* XII.32
- [16] CAH IX 379
- [17] Penguin Caesar Appendix II 242
- [18] CAH XI 326
- [19] CAH X 379
- [20] Fields (2009) 12
- [21] Fields (2008)
- [22] CAH IX 380-1
- [23] Tacitus *Ann.* IV.5
- [24] CAH IX 380
- [25] Holder (2003)
- [26] CAH IX 381
- [27] Rankov (1994)
- [28] CAH XI 284
- [29] CAH X
- [30] CAH XI 285
- [31] Tacitus *Ann.* XVI.27
- [32] Rankov (1994) Plate C
- [33] Rankov (1994) Plate D
- [34] CAH XI 393
- [35] Tacitus *Ann.* II.87
- [36] Rankov (1994) 4
- [37] Tacitus *Hist.* II.5
- [38] Goldsworthy (2003) 60, 66
- [39] CAH X 391
- [40] www.romanlegions.info *Military Diplomas Online Introduction*
- [41] Holder (2006), p.985; Roxan (2003), p.672
- [42] CAH XII
- [43] Goldsworthy (2000) 164–65
- [44] Holder (1982) 65
- [45] Goldsworthy (2000) 164
- [46] Tomlin (1988) 108
- [47] Goldsworthy (2000) 164–5
- [48] Tomlin (1988) 107
- [49] Goldsworthy (2000) 170
- [50] The Roman Law Library *Constitutio Antoniniana de Civitate*
- [51] Goldsworthy (2003) 205
- [52] Mattingly (2006) 244
- [53] Holder (2003) 133
- [54] Mattingly (2006) 223
- [55] 25 legions of 5,000 men each
- [56] 28 legions of 5,500 each double-strength 1st cohorts introduced under Domitian (r. 81–96)
- [57] Goldsworthy (2000) 152 (map): 33 legions of 5,500 each

- [58] Tacitus *Annales* IV.5
- [59] Holder (2003) 120
- [60] J. C. Spaul *ALA* (1996) 257–60 and *COHORTS 2* (2000) 523–7 identify 4 *alae* and 20–30 *cohortes* raised in the late 2nd/early 3rd centuries
- [61] Goldsworthy (2003) 58: 9 cohorts of 480 men each plus German bodyguards
- [62] Goldsworthy (2003) 58: 9 double-cohorts of 800 men each plus 2,000 *equites singulares*
- [63] Implied by Tacitus *Annales*
- [64] CAH XI 320 estimates 380,000
- [65] MacMullen, R. *How Big was the Roman imperial Army?* in *KLIO* (1980) 454 estimates 438,000
- [66] Assuming 33% drop in nos. due to war/disease
- [67] John Lydus *De Mensibus* I.47
- [68] CAH X 361
- [69] CAH XI 812
- [70] Scheidel & Friesen (2009) 7
- [71] Duncan-Jones (1994) 36
- [72] CAH XI 814
- [73] Stathakopoulos (2007) 95
- [74] Duncan-Jones (1994)
- [75] Suetonius *Aug.* 46
- [76] Duncan-Jones (1994) 35
- [77] Austin & Rankov (1995) 110
- [78] Austin & Rankov (1995) 123
- [79] Austin & Rankov (1995) 135
- [80] Austin & Rankov (1995) 361
- [81] Victor XXXIX.44
- [82] Austin & Rankov (1995) 371
- [83] Austin & Rankov (1995) 130-6
- [84] Tacitus *Historiae* I.59, IV.12
- [85] Goldsworthy (2000), p.127
- [86] Goldsworthy (2003), p.154
- [87] Tacitus *Ann.* II.5
- [88] Rankov (1994) 8
- [89] Rankov (1994) 7
- [90] Birley (2002) 43
- [91] Rankov (1994) 14
- [92] Tacitus *Hist.*
- [93] Rankov (1994) 1, 3-4
- [94] Rankov (1994) 15
- [95] Rankov (1994) 18
- [96] Fields (2009) 10
- [97] CAH XI 332-334
- [98] Arrian *Ars Tactica* 17.3
- [99] Birley (2002), p.46
- [100] Goldsworthy (2003), p.136
- [101] Goldsworthy (2003), pp.52-53
- [102] Goldsworthy (2000), p.52
- [103] Holder (2003), p.119
- [104] Goldsworthy (2003), p.168
- [105] Cheesman (1914)
- [106] Davies (1988), pp.141-143
- [107] Goldsworthy (2000), p.140
- [108] Holder (2003), pp.135, 133
- [109] Livy XXXV.12
- [110] Rossi (1971), p.104
- [111] Sidnell (2006), p.172
- [112] CAH XII 212
- [113] Holder (2003), p.140
- [114] Goldsworthy (2003), p.137
- [115] Rossi (1971), p.102
- [116] Mattingly (2006), p.223

- [117] Grant (1985), p.72
- [118] Rossi (1971), p.104.
- [119] Dio Cassius LXXI.16
- [120] CAH XI 331
- [121] Mattingly (2006)
- [122] Goldsworthy (2003), pp.78, 80
- [123] Holder (1982) 46
- [124] Holder (1980), p.123
- [125] Goldsworthy (2003), p.76
- [126] Holder (1980), p.138
- [127] CAH X 396
- [128] Mattingly (2006), pp.168–169
- [129] Military Diplomas Online *Introduction*
- [130] RMD Vol V Appendix 4 e.g. RMD 127, 128
- [131] Dio LV.31.1
- [132] Goldsworthy (2003) 64
- [133] Mattingly (2006), p.190
- [134] Holder (1980), pp.86–88
- [135] Goldsworthy (2003), p.74
- [136] Heather (2005), p.119
- [137] www.roman-britain.org *List of auxiliary units in Britain*
- [138] Based on data in Goldsworthy (2003), pp.95–105; Holder (1980), pp.86–96; CAH Vol XI
- [139] Grant (1996) 401–8 (Penguin Classics)
- [140] Davies (1988), p.148
- [141] Tacitus *Ann.* I.16–48
- [142] Grant (1996) 43–4
- [143] Grant (1996) 52–3
- [144] Based on figs in Goldsworthy (2003) 94; Duncan-Jones (1994) 33–41
- [145] Holder (1982) 143 (table 2)
- [146] CAH (2000)
- [147] Duncan-Jones (1994), pp.34, 45
- [148] Calculated from figures in Duncan-Jones (1994) 45, 217
- [149] Goldsworthy (2003) 94
- [150] Scheidel & Friesen (2009)
- [151] Scheidel & Friesen (2009) 26–7
- [152] Duncan-Jones (1994), pp.36, 40
- [153] Holder (1982) 72
- [154] Birley (2002), p.48
- [155] Vindolanda Tablets Online *Introduction: Soldiers and Civilians*
- [156] Goldsworthy (2003), p.94
- [157] Holder (1982)
- [158] Rankov (1994) Plate F
- [159] Birley (2002), p.47
- [160] Holder (1982) 74
- [161] Fields (2009) 36
- [162] CAH XI 329
- [163] Polybius VI.
- [164] Caesar VIII.4
- [165] Fields (2009) 35
- [166] Caesar II.25
- [167] Caesar VII.51
- [168] Tacitus *Ann.*
- [169] Tacitus *Ann.* I.32
- [170] CAH XI 342
- [171] Goldsworthy (2003) 72
- [172] Goldsworthy (2003)
- [173] Fields (2009) 36, 39
- [174] Goldsworthy (2003), p.73
- [175] Holder (1980), pp.86–88

- [176] Goldsworthy (2003), p.72
 - [177] Caesar VII.26
 - [178] Caesar VII.47
 - [179] CAH XI 325-6
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 - [186] Davies (1989) 214
 - [187] Holder (1982) 78
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 - [189] Davies (1989) 218-9
 - [190] Elton (1996) 107
 - [191] Goldsworthy (2003) 88, 149
 - [192] Rossi (1971), p.59
 - [193] Mattingly (2006), p.207
 - [194] CAH XI 337
 - [195] Goldsworthy (2003), p.209
 - [196] Elton (1996) 111
 - [197] Bishop & Coulston (2006) 217
 - [198] Elton (1996) 115
 - [199] Goldsworthy (2003) 120, 127
 - [200] Mosaic from Piazza Armerina
 - [201] Elton (1996) 237
 - [202] Roth (1998) 221
 - [203] Jones (1964) 831
 - [204] Roth (1998) 222
 - [205] Roth (1998)
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 - [217] Goldsworthy, Adrian. *The Complete Roman Army*. Thames and Hudson, p. 178
 - [218] Goldsworthy, Adrian. *The Complete Roman Army*. Thames and Hudson, p. 185
 - [219] Goldsworthy, Adrian. *The Complete Roman Army*. Thames and Hudson, p. 185
 - [220] Holder (1980), Chapter 2
 - [221] Goldsworthy (2003), p.97
 - [222] Goldsworthy (2003) 134
 - [223] Dio XXXVIII.10.3 and LI.26.5
 - [224] Goldsworthy (2003), p.96
 - [225] Vindolanda Tablet 154
 - [226] Davies (1988) 211
 - [227] *Renuntia* displayed in Goldsworthy (2003), p.145
 - [228] Vindolanda Tablets 182, 343
 - [229] Vindolanda Tablets 155, 180, 182, 183, 184, 207, 309
 - [230] Davies (1988), p.146
 - [231] Vindolanda Tablet 242
 - [232] Davies (1989) 211
 - [233] Vindolanda Tablet 164 (my translation)
 - [234] Goldsworthy (2003), p.92
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- [235] Using average speeds achieved by the Pony Express in the American West, 19th century
- [236] Burton (1988), pp.424-426
- [237] Goldsworthy (2003), p.149
- [238] Goldsworthy (2003), p.91
- [239] Vindolanda tablet 154
- [240] Burton (1988), p.428
- [241] Goldsworthy (2003), pp.146-8
- [242] D.J. Thompson in Wachter (1988), p.557
- [243] Goldsworthy (2003), p.249
- [244] Cichorius plates
- [245] Birley
- [246] Vindolanda Tablets 155, 258
- [247] Vindolanda Tablet 346
- [248] Vindolanda Tablets 166, 311
- [249] Vindolanda Tablets 311, 174, 213
- [250] Goldsworthy (2003) 112-3
- [251] Pliny the Elder XXX.4
- [252] **Roman human sacrifice:** The Romans themselves only definitively banned human sacrifice, by senatorial decree, in 97 BC. Pliny the Elder XXX.3 But it was by then very rare, only practiced in times of extreme national emergency. e.g. after their disastrous defeat at the Battle of Cannae (216 BC), the Romans had, after consulting the Sibylline Books, buried alive in the Forum Boarium (Cattle Market), a pair of Gauls and a pair of Greeks. Livy XXII.57
- [253] Catholic Encyclopedia *Martyr*
- [254] Pliny the Younger *Letters* X.9
- [255] Tacitus *Germania* 43
- [256] Mattingly (2006), p.484
- [257] Mattingly (2006), pp.214-216
- [258] Goldsworthy (2003), p.108
- [259] Goldsworthy (2003), p.110
- [260] Mattingly (2006), p.215
- [261] cf. Plutarch *Pompey* 24
- [262] Meier-Arendt *Römische Steindenkmäler aus Frankfurt am Main*, Museum für Vor- und Frühgeschichte Frankfurt, Archäologische Reihe 1(1983)
- [263] Goldsworthy (2003), p.212
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External links

- Roman Military Diplomas Online (<http://www.romancoins.info/MilitaryDiploma.html>)
 - Batavian auxiliaries re-enactors (<http://www.romanarmy.net/Auxilia.htm>)
 - List of auxiliary units in Britain (http://www.roman-britain.org/military/british_cohortes.htm)
 - Vindolanda Tablets Online (<http://vindolanda.csad.ox.ac.uk>)
-

Late Roman army

Late Roman Army	
Active	284 - 395 AD
Country	Roman Empire
Branch	Army
Size	About 400,000
Unit types	Comitatenses, Limitanei, Scholae, Foederati
Disbanded	The Western army disappeared during the decline of the Roman Empire, whilst the Eastern army became the Byzantine army

The **Late Roman army** is the military forces of the Roman Empire from the accession of Emperor Diocletian in 284 until the Empire's definitive division into Eastern and Western halves in 395. A few decades afterwards, the Western army disintegrated as the Western empire collapsed. The East Roman army, on the other hand, continued intact and essentially unchanged until its reorganization by themes and transformation into the Byzantine army in the 7th century. The term "late Roman army" is often used to include the East Roman army.

Overview

The army of the Principate underwent a significant transformation as a result of the chaotic 3rd century. Unlike the Principate army, the army of the 4th century was heavily dependent on conscription and its soldiers were more poorly remunerated than in the 2nd century. Barbarians from outside the empire probably supplied a much larger proportion of the late army's recruits than in the army of the 1st and 2nd centuries, but there is little evidence that this affected performance.

The army of the 4th century was probably no larger than that of the 2nd. The main change in structure was the establishment of large armies that accompanied the emperors (*comitatus praesentales*) and were generally based away from the frontiers. Their primary function was to deter usurpations. The legions were split up into smaller units comparable in size to the auxiliary regiments of the Principate. In parallel, legionary armour and equipment were abandoned in favour of auxiliary equipment. Infantry adopted the more protective equipment of the Principate cavalry.

The role of cavalry in the late army does not appear to have been enhanced as compared with the army of the Principate. The evidence is that cavalry was much the same proportion of overall army numbers as in the 2nd century and that its tactical role and prestige remained similar. Indeed, the cavalry acquired a reputation for incompetence and cowardice for their role in three major battles in mid-4th century. In contrast, the infantry retained its traditional reputation for excellence.



The Tetrarchs: The emperor Diocletian and his three imperial colleagues. To the left, Diocletian and Maximianus, the two *Augusti* (co-emperors); to the right, Galerius and Constantius Chlorus, the two *Caesars* (deputy emperors). Note the "Pannonian" woollen caps commonly worn (out of combat) by officers in the late army as a result of the pervasive influence of the Illyrian/Thracian officer class; and the sword grips with eagle-head pommels. Porphyry statue on the Basilica di San Marco, Venice

The 3rd and 4th centuries saw the upgrading of many existing border forts to make them more defensible, as well as the construction of new forts with much higher defensive specifications. The interpretation of this trend has fuelled an ongoing debate whether the army adopted a defence-in-depth strategy or continued the same posture of "forward defence" as in the early Principate. Many elements of the late army's defence posture were similar to those associated with forward defence, such as forward location of forts, frequent cross-border operations, and external buffer-zones of allied barbarian tribes. Whatever the defence strategy, it was apparently less successful in preventing barbarian incursions than in the 1st and 2nd centuries. This may have been due to heavier barbarian pressure, and/or to the practice of keeping large armies of the best troops in the interior, depriving the border forces of sufficient support.

Sources

Much of our evidence for 4th century army unit deployments is contained in a single document, the *Notitia Dignitatum*, compiled ca. 395–420, a manual of all late Roman public offices, military and civil. The main deficiency with the *Notitia* is that it lacks any personnel figures so as to render estimates of army size impossible. Also, it was compiled at the very end of the 4th century; it is thus difficult to reconstruct the position earlier. However, the *Notitia* remains the central source on the late Army's structure due to the dearth of other evidence.^[1] The *Notitia* also suffers from significant *lacunae* and numerous errors accumulated from centuries of copying.

The main literary sources for the 4th-century army are the *Res Gestae* (History) of Ammianus Marcellinus, whose surviving books cover the period 353 to 378. Marcellinus, himself a veteran soldier, is regarded by scholars as a reliable and valuable source. But he largely fails to remedy the deficiencies of the *Notitia* as regards army and unit strength or units in existence, as he is rarely specific about either. The third major source for the late army is the corpus of imperial decrees published in the East Roman empire in the 5th and 6th centuries: the Theodosian code (438) and the Corpus Iuris Civilis (528–39). These compilations of Roman laws dating from the 4th century contain numerous imperial decrees relating to all aspects of the regulation and administration of the late army.

De re militari, a treatise on Roman military affairs by Vegetius, a late 4th century writer, contains considerable information on the late army, although its focus is on the army of the Republic and Principate. However, Vegetius (who wholly lacked military experience) is often unreliable. For example, he stated that the army abandoned armour and helmets in the later 4th century (offering the absurd explanation that this equipment was too heavy), which is contradicted by sculptural and artistic evidence.^[2] In general, it is not safe to accept a Vegetius statement unless it is corroborated by other evidence.

Scholars of the late army have to contend with a dramatic diminution of the epigraphic record in the 3rd and 4th centuries, compared with the 1st–2nd centuries. Diplomas were no longer issued to retiring auxiliaries after 203 (most likely because almost all were already Roman citizens by then). In addition, there was a huge reduction in the number of tombstones, altars and other dedications by Roman servicemen. Official stamps of military units on building materials (e.g. tiles) are much rarer. But this trend should probably not be seen as indicating a decline in the army's administrative sophistication. Papyrus evidence from Egypt shows that military units continued to keep detailed written records in the 4th century (the vast bulk of which are lost due to organic decomposition). Most likely, the decline in inscriptions is due to changing fashion, in part influenced by the increase in barbarian recruits



Page from a medieval copy of the *Notitia Dignitatum*, depicting shields of *Magister Militum Praesentalis II*, a late Roman register of military commands.

and the rise of Christianity.^[3] The dearth of inscriptions leaves major gaps in our understanding of the late army and renders many conclusions tentative.

The seminal modern study of the late army is contained in *The Later Roman Empire, 284-602* (LRE) by the "high priest" of late Roman studies, A.H.M. Jones. Because of its wealth of detail and documentary references, this 1964 publication remains an essential tool for all scholars of the period. Its main drawback is its age, as the work necessarily does not benefit from the massive corpus of archaeological evidence accumulated since its publication.

Evolution of the 4th-century army

Background: the Principate army

The regular army of the Principate was established by the founder-emperor Augustus (ruled 30 BC – 14 AD) and survived until the end of the 3rd century. The regular army consisted of two distinct corps, both being made up of mainly volunteer professionals.

The elite legions were large infantry formations, varying between 25 and 33 in number, of ca. 5,500 men each (all infantry save a small cavalry arm of 120) which admitted only Roman citizens.^[4] The *auxilia* consisted of around 400 much smaller units of ca. 500 men each (a minority were up to 1,000 strong), which were divided into approximately 100 cavalry *alae*, 100 infantry *cohortes* and 200 mixed cavalry/infantry units or *cohortes equitatae*.^[5] Some *auxilia* regiments were designated *sagittariorum*, meaning that they specialised in archery. The *auxilia* thus contained almost all the Roman army's cavalry and archers, as well as (from the late 1st century onwards) approximately the same number of foot soldiers as the legions.^[6] The *auxilia* were mainly recruited from the *peregrini*: provincial subjects of the empire who did not hold Roman citizenship, but the *auxilia* also admitted Roman citizens and possibly *barbari*, the Roman term for peoples living outside the empire's borders.^[7] At this time both legions and *auxilia* were almost all based in frontier provinces.^[8] The only substantial military force at the immediate disposal of the emperor was the elite Praetorian Guard of 10,000 men which was based in Rome.^[9]

The senior officers of the army were, until the 3rd century, mainly from the Italian aristocracy. This was divided into two orders, the senatorial order (*ordo senatorius*), consisting of the ca. 600 sitting members of the Roman Senate and their sons and grandsons, and the more numerous (several thousand-strong) *equites* or "knights".

Hereditary senators and *equites* combined military service with civilian posts, a career path known as the *cursus honorum*, typically starting with a period of junior administrative posts in Rome, followed by 5–10 years in the military and a final period of senior positions in the either the provinces or Rome.^[10] This tiny, tightly-knit ruling oligarchy of under 10,000 men monopolised political, military and economic power in an empire of ca. 80 million inhabitants and achieved a remarkable degree of political stability. During the first 200 years of its existence (30 BC – 180 AD), the empire suffered only one major episode of civil strife (the Civil War of 68–9). Otherwise, usurpation attempts by provincial governors were few and swiftly suppressed.

As regards the military, members of the senatorial order (*senatorii*) exclusively filled the following posts:

- (a) *legatus Augusti pro praetore* (provincial governor of a border province, who was commander-in-chief of the military forces deployed there as well as heading the civil administration)
- (b) *legatus legionis* (legion commander)
- (c) *tribunus militum laticlavus* (legion deputy commander).^[11]

The *equites* provided:

- (a) the governors (*procuratores*) of Egypt and of a few minor provinces
- (b) the two *praefecti praetorio* (commanders of the Praetorian Guard)
- (c) a legion's *praefectus castrorum* (3rd-in-command) and its remaining five *tribuni militum* (senior staff officers)

(d) the *praefecti* (commanders) of the auxiliary regiments.^[12]

By the late 1st century, a distinct equestrian group, non-Italian and military in character, became established. This was a result of the established custom whereby the emperor elevated the *primuspilus* (chief centurion) of each legion to equestrian rank on completion of his year in office. This resulted in some 30 career soldiers, mostly non-Italian and risen from the ranks, joining the aristocracy each year.^[13] Far less wealthy than their Italian counterparts, many such *equites* belonged to families that provided career soldiers for generations. Prominent among them were Romanised Illyrians, the descendants of the Illyrian-speaking tribes that inhabited the Roman provinces of Pannonia (W Hungary/Slovenia), Dalmatia (Croatia/Bosnia) and Moesia Superior (Serbia), together with the neighbouring Thracians of Moesia Inferior (N Bulgaria) and Macedonia provinces. From the time of Domitian (ruled 81–96), when over half the Roman army was deployed in the Danubian regions, the Illyrian and Thracian provinces became the most important recruiting ground of the *auxilia* and later the legions.^[14]

3rd-century developments

The seminal development for the army in the early 3rd century was the *Constitutio Antoniniana* (Antonine Decree) of 212, issued by Emperor Caracalla (ruled 211–18). This granted Roman citizenship to all free inhabitants of the empire, ending the second-class status of the *peregrini*.^[16] This had the effect of breaking down the distinction between the citizen legions and the auxiliary regiments. In the 1st and 2nd centuries, the legions were the symbol (and guarantors) of the dominance of the Italian "master nation" over its subject peoples. In the 3rd century, they were no longer socially superior to their auxiliary counterparts (although they may have retained their elite status in military terms) and the legions' special armour and equipment (e.g. the *lorica segmentata*) was phased out.^[17]

The traditional alternation between senior civilian and military posts fell into disuse in the 2nd and 3rd centuries, as the Italian hereditary aristocracy was progressively replaced in the senior echelons of the army by the *primipilares* (former chief centurions).^[18] In the 3rd century, only 10% of auxiliary prefects whose origins are known were Italian equestrians, compared to the majority in the previous two centuries.^[19] At the same time, equestrians increasingly replaced the senatorial order in the top commands. Septimius Severus (ruled 197–211) placed equestrian *primipilares* in command of the three new legions he raised and Gallienus (260–68) did the same for all the other legions, giving them the title *praefectus pro legato* ("prefect acting as legate").^{[20][21]} The rise of the *primipilares* may have provided the army with more professional leadership, but it increased military rebellions by ambitious generals. The 3rd century saw numerous *coups d'état* and civil wars. Few 3rd-century emperors enjoyed long reigns or died of natural causes.^[22]



Reenactor wearing the typical equipment of a late 3rd century foot soldier. The helmet is a Niederbieber type, with cross-pattern reinforcing ridges on the top of the bowl, and cheek-guards which can be fastened together. The sword is a spatha (median blade length 900 mm), used by the cavalry only in the 1st/2nd c. This soldier carries a *spiculum*, a heavy *pilum*-type javelin. Note the chain mail (*lorica hamata*) shirt and oval shield. Clothing consisted of a long-sleeved tunic, trousers and boots. The equipment of a 4th-century infantryman was very similar to the 3rd century, save that the *spiculum* was usually replaced by a heavy thrusting-spear (*hasta*) and the helmet was predominantly of the "Intercisa type".^[15]

Emperors responded to the increased insecurity with a steady build-up of the forces at their immediate disposal. These became known as the *comitatus* ("escort", from which derives the English word "committee"). To the Praetorian Guard's 10,000 men, Septimius Severus added the legion *II Parthica*. Based at Albano Laziale near

Rome, it was the first legion to be stationed in Italy since Augustus. He doubled the size of the imperial escort cavalry, the *equites singulares Augusti*, to 2,000 by drawing select detachments from *alae* on the borders.^[23] His *comitatus* thus numbered some 17,000 men, equivalent to 31 infantry *cohortes* and 11 *alae* of cavalry.^[24] The trend for the emperor to gather round his person ever greater forces reached its peak in the 4th century under Constantine I the Great (ruled 312–37) whose *comitatus* may have reached 100,000 men, perhaps a quarter of the army's total effective strength.^[25]

The rule of Gallienus saw the appointment of a senior officer, with the title of *dux* (plural form: *duces*, the origin of the medieval noble rank of duke), to command all the *comitatus* cavalry. This force included *equites promoti* (cavalry contingents detached from the legions), plus Illyrian light cavalry (*equites Dalmatarum*) and allied barbarian cavalry (*equites foederati*).^[21] Under Constantine I, the head of the *comitatus* cavalry was given the title of *magister equitum* ("master of horse"), which in Republican times had been held by the deputy to a Roman dictator.^[26] But neither title implies the existence of an independent "cavalry army", as was suggested by some more dated scholars. The cavalry under both officers were integral to mixed infantry and cavalry *comitatus*, with the infantry remaining the predominant element.^[24]

The 3rd century saw a progressive reduction in the size of the legions and even some auxiliary units. Legions were broken up into smaller units, as evidenced by the shrinkage and eventual abandonment of their traditional large bases, documented for example in Britain.^[27] In addition, from the 2nd century onwards, the separation of some detachments from their parent units became permanent in some cases, establishing new unit types, e.g. the *vexillatio equitum Illyricorum* based in Dacia in the early 2nd century^[28] and the *equites promoti*^[21] and *numerus Hnaufridi* in Britain.^[29] This led to the proliferation of unit types in the 4th century, generally of smaller size than those of the Principate. For example, in the 2nd century, *vexillatio* (from *vexillum* = "standard") was a generic term meaning any detachment from a legion or auxiliary regiment, either cavalry or infantry. In the 4th century, it denoted an elite cavalry regiment.^[30]

From the 3rd century are the first records of a small number of regular units bearing the names of barbarian tribes (as opposed to *peregrini* tribal names). These were *foederati* (allied troops under a military obligation to Rome) converted into regular units, a trend that was to accelerate in the 4th century.^[31] The *ala I Sarmatarum*, based in Britain, was probably composed of some of the 5,500 captured Sarmatian horsemen sent to garrison Hadrian's Wall by emperor Marcus Aurelius in ca. 175.^[32] There is no evidence of irregular barbarian units becoming part of the regular Principate army until the 3rd century.^[33]

3rd-century crisis



Roman emperor Valerian I (left, kneeling) begs for his life after being captured by Persian Shah Shapur I (mounted) at the Battle of Edessa (259), the most humiliating of the military disasters suffered by the empire in the late 3rd century. Rock-cut bas-relief at Naqsh-e Rostam near Shiraz, Iran

The mid-3rd century saw the empire plunged into a military and economic crisis which almost resulted in its disintegration. It consisted of a series of military catastrophes in 251–271 when Gaul, the Alpine regions and Italy, the Balkans and the East were overrun by Alamanni, Sarmatians, Goths and Persians.^[34] At the same time, the Roman army was struggling with the effects of a devastating pandemic, now thought to have been smallpox, the Plague of Cyprian which began in 251 and was still raging in 270, when it claimed the life of Emperor Claudius II Gothicus (268–70).^[35] The evidence for the earlier Antonine pandemic of the late 2nd century, probably also smallpox, indicates a mortality of 15–30% in the empire as a whole.^[36] Zosimus describes the Cyprian outbreak as even worse.^[37] The armies and, by extension, the frontier provinces where they were based (and mainly recruited), would likely

have suffered deaths at the top end of the range, due to their close concentration of individuals and frequent movements across the empire.^[38]

The 3rd-century crisis started a chain-reaction of socio-economic effects that proved decisive for the development of the late army. The combination of barbarian devastation and reduced tax-base due to plague bankrupted the imperial government, which resorted to issuing ever more debased coin *e.g.* the *antoninianus*, the silver coin used to pay the troops in this period, lost 95% of its silver content between its launch in 215 and its demise in the 260s. Thus 20 times more money could be distributed with the same amount of precious metal.^[39] This led to rampant price inflation: for example, the price of wheat under Diocletian was 67 times the typical Principate figure.^[40] The monetary economy collapsed and the army was obliged to rely on unpaid food levies to obtain supplies.^[41] Food levies were raised without regard to fairness, ruining the border provinces where the military was mainly based.^[42] Soldiers' salaries became worthless, which reduced the army's recruits to a subsistence-level existence.^[43] This in turn discouraged volunteers and forced the government to rely on conscription^[44] and large-scale recruitment of barbarians into the regular army because of the shortfalls caused by the plague. By the mid-4th century, barbarian-born men probably accounted for about a quarter of all recruits (and over a third in elite regiments), likely a far higher share than in the 1st–2nd centuries.^[45]

Illyrian military junta

By the 3rd century, Romanised Illyrians and Thracians, mostly *primipilares* and their descendants, came to dominate the army's senior officer echelons.^[46] Finally, the Illyrian/Thracian officer class seized control of the state itself. In 268, the emperor Gallienus (ruled 260–68) was overthrown by a *coup d'état* organised by a clique of Illyrian senior officers, including his successors Claudius II Gothicus and Aurelian (270–75).^[47] They and their successors Probus (276–82) and Diocletian (ruled 284–305) and his colleagues in the Tetrarchy formed a sort of self-perpetuating military junta of Illyrian officers who were born in the same provinces (several in the same city, Sirmium, a major legionary base in Moesia Superior) or had served in the same regiments.^[14]

The junta reversed the military disasters of 251–71 with a string of victories, most notably the defeat at Naissus of a vast Gothic army by Claudius II, which was so crushing that the Goths did not seriously threaten the empire again until a century later at Adrianople (378).^[48]

The Illyrian emperors were especially concerned with the depopulation of the border provinces due to plague and barbarian invasions during the Crisis. The problem was especially acute in their own Danubian home provinces, where much arable land had fallen out of cultivation through lack of manpower.^[49] The depopulation was thus a serious threat to army recruitment and supply. In response, the Illyrian junta pursued an aggressive policy of resettling defeated barbarian tribesmen on imperial territory on a massive scale. Aurelian moved a large number of Carpi to Pannonia in 272.^[50] (In addition, by 275 he evacuated the province of Dacia, removing the entire provincial population to Moesia, an act largely motivated by the same problem).^[51] His successor Probus is recorded as transferring 100,000 Bastarnae to Moesia in 279/80 and later equivalent numbers of Gepids, Goths and Sarmatians.^[52] Diocletian continued the policy, transferring in 297 huge numbers of Bastarnae, Sarmatians and Carpi (the entire latter tribe, according to Victor).^{[50][53]} Although the precise terms under which these people were settled in the empire are unknown (and



The Aurelian Walls of Rome, built by Aurelian in 270–5. Rome's first new wall since the construction of the Servian Wall after the Gauls sacked Rome 650 years earlier, they symbolised the pervasive insecurity of the 3rd century empire. Original height: 8m (25 ft). Doubled in 410 to 16m (52 ft) after second sack of Rome in 410. Both walls and towers were originally crenellated, but this has only survived in small sections. Most of the 19km circuit still stands today

may have varied), the common feature was the grant of land in return for an obligation of military service much heavier than the normal conscription quota. The policy had the triple benefit, from the Roman government's point of view, of weakening the hostile tribe, repopulating the plague-ravaged frontier provinces (and bringing their abandoned fields back into cultivation) and providing a pool of first-rate recruits for the army. But it could also be popular with the barbarian prisoners, who were often delighted by the prospect of a land grant within the empire. In the 4th century, such communities were known as *laeti*.^[31]

The Illyrian emperors ruled the empire for over a century, until 379. Indeed, until 363, power was held by descendants of one of the original junta members. Constantine I's father, Constantius Chlorus, was a *Caesar* (deputy emperor) in Diocletian's Tetrarchy.^[54] His grandson Julian ruled until 363. The Illyrian emperors restored the army to its former strength and effectiveness, but were solely concerned with the needs and interests of the military. They were also divorced from the wealthy Roman senatorial families that dominated the Senate and owned much of the empire's land. This in turn bred a feeling of alienation from the army among the Roman aristocracy which in the later 4th century began to resist the military's exorbitant demands for recruits and supplies.^[55]

Diocletian



The emperor Diocletian (ruled 284–305), who launched wide-ranging reforms of the Roman army and government. Bronze *follis* coin

Diocletian is widely recognised as the greatest of the Illyrian emperors. Diocletian's wide-ranging administrative, economic and military reforms were aimed at providing the military with adequate manpower, supplies and military infrastructure.^[56] In the words of one historian, "Diocletian ... turned the entire empire into a regimented logistic base" (to supply the army).^[57]

Military command structure

Diocletian's administrative reforms had the twin aims of ensuring political stability and providing the bureaucratic infrastructure needed to raise the recruits and supplies needed by the army. At the top, Diocletian instituted the Tetrarchy. This divided the empire into two halves, East and West, each to be ruled by an *Augustus* (emperor). Each *Augustus* would in turn appoint a deputy called a *Caesar*, who would act both as his ruling partner (each Caesar was assigned a quarter of the empire) and designated successor. This four-man team would thus have the flexibility to deal with multiple and simultaneous challenges as well as providing for a legitimate succession.^[58] The latter failed in its central aim, to prevent the disastrous civil wars caused by the multiple usurpations of the 3rd century. Indeed, the situation may have been made worse, by providing each pretender with a substantial *comitatus* to enforce his claim. Diocletian himself lived (in retirement) to see his successors fight each other for power. But the division of the empire into Eastern and Western halves, recognising both geographical and cultural realities, proved enduring: it was mostly retained during the 4th century and became permanent after 395.

Diocletian reformed the provincial administration, establishing a three-tiered provincial hierarchy, in place of the previous single-tier structure. The original 42 Principate provinces were almost tripled in number to *ca.* 120. These were grouped into 12 divisions called dioceses, each under a *vicarius*, in turn grouped into 4 praetorian prefectures, to correspond to the areas of command assigned to the four Tetrarchs, who were each assisted by a chief-of-staff called a *praefectus praetorio* (not be confused with the commanders of the Praetorian Guard, who held the same title). The aim of this fragmentation of provincial administration was probably to reduce the possibility of military rebellion by governors (by reducing the forces they each controlled).^[59]

Also to this end, and to provide more professional military leadership, Diocletian separated military from civil command at the lowest, provincial level. Governors of provinces on the frontiers were stripped of command of the troops stationed there in favour of purely military officers called *duces limitis* ("border commanders"). Some 20 *duces* may have been created under Diocletian.^[49] Most *duces* were given command of forces in a single province, but a few controlled more than one province e.g. the *dux Pannoniae I et Norici*.^[60] However, at higher echelons, military and administrative command remained united in the *vicarii* and *praefecti praetorio*.^[59] In addition, Diocletian completed the exclusion of the senatorial class, still dominated by the Italian aristocracy, from all senior military commands and from all top administrative posts except in Italy.^[61]

Manpower

To ensure the army received sufficient recruits, Diocletian appears to have instituted systematic annual conscription of Roman citizens for the first time since the days of the Roman Republic. In addition, he was probably responsible for the decree, first recorded in 313, compelling the sons of serving soldiers and veterans to enlist.^[44]

Under Diocletian, the number of legions, and probably of other units, more than doubled.^[62] But it is unlikely that overall army size increased nearly as much, since unit strengths appear to have been reduced, in some cases drastically e.g. new legions raised by Diocletian appear to have numbered just 1,000 men, compared to the Principate establishment of ca. 5,500 i.e. the new legions may have increased overall legionary numbers by only ca. 15%.^{[63][64]} Even so, scholars generally agree that Diocletian increased army numbers substantially, by at least 33%.^[65] However, the only extant ancient figure for the size of Diocletian's army is 390,000, which is much the same as that of ca. 130 under Hadrian and well below the peak figure of 440,000 under Septimius Severus.^{[66][67]} The apparent contradiction may be resolved if one accepts that Diocletian was starting from a much lower base than the Severus figure, as the army's effective size had probably shrunk sharply as a result of losses from plague and the military disasters of the late 3rd century.^[68] In this case, simply restoring numbers to their 2nd-century level would have involved a major increase. (See Army size below).

Supplies

Diocletian's primary concern was to place the provision of food supplies to the army on a rational and sustainable basis. To this end, the emperor put an end to the arbitrary exaction of food levies (*indictiones*) for the army, whose burden fell mainly on border provinces and which had ruined them economically. He instituted a system of regular annual *indictiones* ("tax levies") with the tax demanded set in advance for 5 years and related to the amount of cultivated land in each province, backed by a thorough empire-wide census of land, peasants and livestock.^[69] To deal with the problem of rural depopulation (and consequent loss of food production), he decreed that peasants, who had always been free to leave their land during the Principate, must never leave the locality in which they were registered by the census. This measure had the effect of legally tying tenant farmers (*coloni*) and their descendants to their landlords' estates.^[70]

Military infrastructure

In parallel with restoring the size of the army, Diocletian's efforts and resources were focused on a massive upgrading of the defensive infrastructure along all the empire's borders, including new forts and strategic military roads.^[71]

Constantine



The emperor Constantine I (ruled 312–37), who established the first large-scale *comitatus* (imperial escort army) and divided the army into escort army (*comitatenses*) and border (*limitanei*) troops, giving the late Roman army the structure described in the *Notitia Dignitatum*. Bust in Musei Capitolini, Rome

After defeating Maxentius in 312, Constantine disbanded the Praetorian Guard, ending the latter's 300-year existence.^[72] Although the instant reason was the Guard's support for his rival Maxentius, a force based in Rome had also become obsolete since emperors now rarely resided there. The imperial escort role of the Guard's cavalry, the *equites singulares Augusti*, was now fulfilled by the *scholae*. These elite cavalry regiments existed by the time of Constantine and may have been founded by Diocletian.^[73]

Constantine expanded his *comitatus* into a major and permanent force. This was achieved by the addition of units withdrawn from the frontier provinces and by creating new units: more cavalry *vexillationes* and new-style infantry units called *auxilia*. The expanded *comitatus* was now placed under the command of two new officers, a *magister peditum* to command the infantry and *magister equitum* for cavalry. *Comitatus* troops were now formally denoted *comitatenses* to distinguish them from the frontier forces (*limitanei*).^[59] The size of the Constantinian *comitatus* is uncertain. But Constantine mobilised 98,000 troops for his war against Maxentius, according to Zosimus.^[25] It is likely that most of these were retained for his *comitatus*.^[26] This

represented about a quarter of the total regular forces, if one accepts that the Constantinian army numbered around 400,000.^[74] The rationale for such a large *comitatus* has been debated among scholars. A traditional view sees the *comitatus* as a strategic reserve which could be deployed against major barbarian invasions that succeeded in penetrating deep into the empire or as the core of large expeditionary forces sent across the borders. But more recent scholarship has viewed its primary function as insurance against potential usurpers.^[24] (See Strategy of the Late Roman army below).

Constantine I completed the separation of military commands from the administrative structure. The *vicarii* and *praefecti praetorio* lost their field commands and became purely administrative officials. However, they retained a central role in military affairs, as they remained responsible for military recruitment, pay and, above all, supply.^[75] It is unclear whether the *duces* on the border now reported direct to the emperor, or to one of the two *magistri* of the *comitatus*.

In addition, Constantine appears to have reorganised the border forces along the Danube, replacing the old-style *alae* and *cohortes* with new units of *cunei* (cavalry) and *auxilia* (infantry) respectively.^[59] It is unclear how the new-style units differed from the old-style ones, but those stationed on the border (as opposed to those in the *comitatus*) may have been smaller, perhaps half the size.^[76] In sectors other than the Danube, old-style auxiliary regiments survived.^[77]

The 5th-century historian Zosimus strongly criticised the establishment of the large *comitatus*, accusing Constantine of wrecking his predecessor Diocletian's work of strengthening the border defences: "By the foresight of Diocletian, the frontiers of the Roman empire were everywhere studded with cities and forts and towers... and the whole army was stationed along them, so it was impossible for the barbarians to break through... But Constantine ruined this

defensive system by withdrawing the majority of the troops from the frontiers and stationing them in cities which did not require protection."^[78] Zosimus' critique is probably excessive, both because the *comitatus* already existed in Diocletian's time and because some new regiments were raised by Constantine for his expanded *comitatus*, as well as incorporating existing units.^[79] Nevertheless, the majority of his *comitatus* was drawn from existing frontier units.^[63] This drawdown of large numbers of the best units inevitably increased the risk of successful large-scale barbarian breaches of the frontier defences.^[80]

Later 4th century

On Constantine's death in 337, his three sons Constantine II, Constans and Constantius II, divided the empire between them, ruling the West (Gaul, Britain and Spain), the Centre (Italy, Africa and the Balkans), and the East respectively. They also each received a share of their father's *comitatus*. By 353, when only Constantius survived, it appears that the 3 *comitatus* had become permanently based in these regions, one each in Gaul, Illyricum and the East - Gaul and the East under a *magister equitum*, Illyricum under a *comes* (plural form: *comites*, from which derives the modern noble rank of count). By the 360s, the border *duces* reported to their regional *comitatus* commander.^[72] However, in addition to the regional *comitatus*, Constantius retained a force that accompanied him everywhere, which was from then called a *comitatus praesentalis* (imperial escort army).^[81] The three regional armies became steadily more numerous until, by the time of the *Notitia* (ca. 400), there were 6 in the West and 3 in the East.^[59] These corresponded to the border dioceses of, in the West: Britannia, Tres Galliae, Illyricum (West), Africa and Hispaniae; and in the East: Illyricum (East), Thraciae and Oriens. Thus, the regional *comitatus* commander had become the military counterpart of the diocesan administrative head, the *vicarius*, in control of all military forces in the diocese, including the *duces*.^{[82][83]} At this point, therefore, the parallel military/civil administrative structure may be summarised as follows:

PROVINCIAL ADMINISTRATIVE STRUCTURE IN LATE ROMAN EMPIRE (ca. 395)

Level	Military commander	Civil administrator
Province	Dux limitis	Corrector
Diocese	Magister militum (East)/ Comes rei militaris (West)	Vicarius
Praetorian prefecture	none	Praefectus praetorio

The evolution of regional *comitatus* was a partial reversal of Constantine's policy and, in effect, a vindication of Zosimus' critique that the *limitanei* had been left with insufficient support.^[84]

Despite the proliferation of regional *comitatus*, the imperial escort armies remained in existence, and in the period of the *Notitia* (ca. 400) three *comitatus praesentales*, each 20–30,000 strong, still contained a total of ca. 75,000 men.^[85] If one accepts that the army at the time numbered about 350,000 men, the escort armies still contained 20–25% of the total effectives. Regiments which remained with the escort armies were, not later than 365, denoted *palatini* (lit. "of the palace", from *palatium*), a higher grade of *comitatenses*.^[81] Regiments were now classified in four grades, which denoted quality, prestige and pay. These were, in descending order, *scholares*, *palatini*, *comitatenses* and *limitanei*.^[86]

Army size

The traditional view of scholars is that the 4th-century army was much larger than the 2nd century army, in the region of double the size. The late 6th-century writer Agathias, gives a global total of 645,000 effectives for the army "in the old days", presumed to mean at its peak under Constantine I.^[87] This figure probably includes fleets, giving a total of ca. 600,000 for the army alone. A.H.M. Jones' *Later Roman Empire* (1964), which contains the fundamental study of the late Roman army, calculated a similar total of 600,000 (exc. fleets) by applying his own estimates of unit strength to the units listed in the *Notitia Dignitatum*.^[88]

But the Agathias-Jones view has fallen out of favour with some historians in more recent times. Agathias' figure, if it has any validity at all, may represent the official, as opposed to actual, strength of the Constantinian army. In reality, the slim evidence is that late units were often severely under-strength, perhaps only about two-thirds of official.^[89] Thus Agathias' 600,000 on paper may have been no more than ca. 400,000 in reality. The latter figure accords well with the other global figure from ancient sources, by the 6th century writer John Lydus, of 389,704 (excluding fleets) for the army of Diocletian. Lydus' figure is accorded greater credibility than Agathias' by scholars because of its precision (implying that it was found in an official document) and the fact that it is ascribed to a specific time period.^[90]

Jones' figure of 600,000 is based on assumptions about *limitanei* unit strengths which may be too high. Jones calculated unit strengths in Egypt under Diocletian using papyrus evidence of unit payrolls. But a rigorous reassessment of the evidence by R. Duncan-Jones concluded that Jones had overestimated unit sizes by 2–6 times.^[91] For example, Jones estimated legions on the frontiers at ca. 3,000 men and other units at ca. 500.^[92] But Duncan-Jones' revisions found frontier legions of around 500 men, an *ala* of just 160 and an *equites* unit of 80. Even allowing for the possibility that some of these units were detachments from larger units, it is likely that Diocletianic unit strengths were far lower than earlier.^[93]

Duncan-Jones' figures receive support from a substantial corpus of excavation evidence from all the imperial borders which suggests that late forts were designed to accommodate much smaller garrisons than their Principate predecessors. Where such sites can be identified with forts listed in the *Notitia*, the implication is that the resident units were also smaller. Examples include the *Legio II Herculia*, created by Diocletian, which occupied a fort just one-seventh the size of a typical Principate legionary base, implying a strength of ca. 750 men. At *Abusina* on the Rhine, the *Cohors III Brittonum* was housed in a fort only 10% the size of its old Trajanic fort, suggesting that it numbered only around 50 men. The evidence must be treated with caution as identification of archaeological sites with *Notitia* placenames is often tentative and again, the units in question may be detachments (the *Notitia* frequently shows the same unit in two or three different locations simultaneously). Nevertheless, the weight of the archaeological evidence favours small sizes for frontier units.^[94]

At the same time, more recent work has suggested that the regular army of the 2nd century was considerably larger than the ca. 300,000 traditionally assumed. This is because the 2nd century auxilia were not just equal in numbers to the legions as in the early 1st century, but some 50% larger.^[5] The Principate army probably reached a peak of nearly 450,000 (excluding fleets and *foederati*) at the end of the 2nd century.^[67] Furthermore, the evidence is that the actual strength of 2nd century units was typically much closer to official (ca. 85%).^[95] In any case, estimates of army strength for the Principate are based on much firmer evidence than those for the later period, which are highly speculative, as the table below shows.

ROMAN ARMY NUMBERS 24–420

Army corps	Tiberius 24	Hadrian ca. 130	S. Severus 211	3rd-century Crisis ca. 270	Diocletian 284–305	Constantine I end rule 337	Notitia ca. 420
LEGIONS	125,000 ^[96]	155,000 ^[97]	182,000 ^[98]				
AUXILIA	125,000 ^[99]	218,000 ^[5]	250,000 ^[100]				
PRAETORIAN GUARD	~5,000 ^[101]	~10,000 ^[102]	~10,000				
Total Roman Army	255,000^[103]	383,000^[104]	442,000^[105]	n.a.	390,000^[66]	410,000?^[74]	350,000?^[106]

NOTE: Regular land army only (excludes irregular barbarian *foederati* units and Roman navy effectives)

Army structure

The later 4th-century army contained three types of army group: (a) imperial escort armies (*comitatus praesentales*). These were ordinarily based near the imperial capitals (Milan in the West, Constantinople in the East), but usually accompanied the emperors on campaign. (b) Regional field armies (*comitatus*). These were based in strategic regions, on or near the frontiers. (c) Border armies (*exercitus limitanei*).^[107]

Types (a) and (b) are both frequently defined as "mobile field armies". This is because, unlike the *limitanei* units, they were not based in fixed locations. But their strategic role was quite different. The escort armies' primary role was probably to provide the emperor's ultimate insurance against usurpers: the very existence of such a powerful force would deter many potential rivals, and if it did not, the escort army alone was often sufficient to defeat them.^[24] Their secondary role was to accompany the emperor on major campaigns such as a foreign war or to repel a large barbarian invasion.^[108] The regional *comitatus*, on the other hand, had the task of supporting the *limitanei* in operations in the region they were based in.^[109]

High Command structure

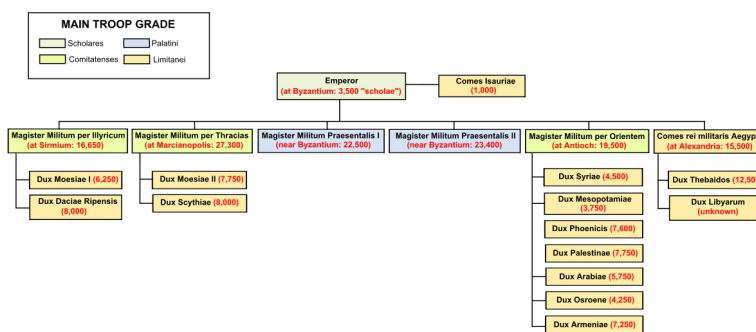
East

The eastern section of the *Notitia* is dated to ca. 395, at the death of Theodosius I. At this time, according to the *Notitia*, in the East there were 2 imperial escort armies (*comitatus praesentales*), each commanded by a *magister militum praesentalis*, the highest military rank, who reported direct to the emperor. These contained units of mainly *palatini* grade. In addition, there were 3 regional *comitatus*, in East Illyricum, Thraciae and Oriens dioceses, consisting mostly of *comitatenses*-grade troops. Each was commanded by a *magister militum*, who also reported direct to the emperor.^[112]

An anomaly in the East is the existence of two corps of *limitanei* troops, in Egypt and Isauria, each commanded by a *comes rei militaris*, rather than a *dux*, who reported to the emperor direct, according to the *Notitia*.^[112] However, imperial decrees of ca. 440 show that both these officers reported to the *magister militum per Orientem*.^[83] One possible explanation for this discrepancy is that the reporting arrangements changed between 395 and 440. By the latter date, if not earlier, the *MM per Orientem* had evidently become responsible for military forces in the whole of Oriens prefecture (which included Anatolia and Egypt) and not just the Oriens diocese.

The 13 eastern border *duces* are listed in the *Notitia* by the diocese in which their forces were deployed: (East) Illyricum (2 *duces*), Thraciae (2), Pontica (1), Oriens (6) and Aegyptum (2).^[112] Jones and Elton argue that, from the 360's onwards, the *duces* reported to the commander of their diocesan *comitatus*: the *magister militum* per Illyricum, Thracias, Orientem and the *comes* per Aegyptum, respectively (on the basis of evidence in Ammianus for the period 353-78 and from 3 surviving imperial decrees dated 412, 438 and 440).^{[82][113][114]} The *dux Armeniae* is shown under the Pontica diocese, whose military commander is not specified in the *Notitia*, but was probably the *magister praesentalis* II at the time of the *Notitia*.^[115] Later, the *dux Armeniae* is likely to have come under the aegis of the *magister militum per Orientem*. The eastern structure as presented in the *Notitia* remained largely intact until the time of Justinian I (525-65).^[83]

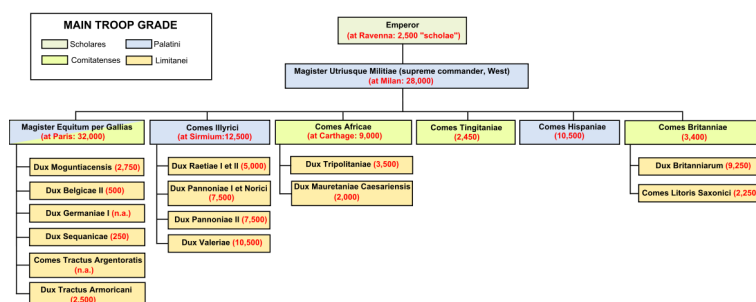
HIGH COMMAND STRUCTURE OF THE EAST ROMAN ARMY (ca. 395 AD)



Figures in brackets are approximate estimates of corps strength. Total army strength: approx. 200,000. Assumptions of unit sizes: In *comitatus*: legiones 1,000 men; vexillationes and auxilia 500; pseudocomitatenses as in *limitanei*. *Limitanei*: legiones 500, other units 250. Based on the "Notitia Dignitatum".

High command structure of the East Roman army ca. AD 395. Commands and army sizes based on data in the *Notitia Dignitatum Orientis*.^[110] Eastern *magistri militum*, in command of *comitatus* armies, reported direct to the emperor. *Duces* are shown reporting to their diocesan *magister militum*, as suggested by Jones and Elton. Locations given indicate usual winter quarters in this period.

HIGH COMMAND STRUCTURE OF THE WEST ROMAN ARMY (ca. 410-425 AD)



N.B. Locations given are the usual winter quarters at this time. "Main troop grade" indicates the status of the majority of the regiments in the corps. Reporting relationships as in A.H.M. Jones *Later Roman Empire* (1964) pp 100 and 609. Figures in brackets are approximate estimates of corps strength. Total army strength: ca. 150,000 (about 20 units are duplicated). Assumptions of unit sizes: In *comitatus*: legiones 1,000 men; vexillationes and auxilia 500; pseudocomitatenses as in *limitanei*. *Limitanei*: legiones 500, other units 250. Based on the "Notitia Dignitatum". The western section of the "Notitia" was drawn up after the major barbarian invasion of Gaul in 406 AD: this explains why the "limites" forces on the Rhine are very low: many of their units were drafted into the field army of Gaul as an emergency measure.

High command structure of the West Roman army ca. 410–425. Commands and army sizes based on data in the *Notitia Dignitatum*. Reporting relationship between *duces* and *comites* as in the East, with *duces* reporting to senior officer in their diocese (whereas the *Notitia* places them directly under the *magister utriusque militiae*).^[111] Locations given indicate usual winter quarters in this period.

West

The western section was completed considerably later than its eastern counterpart, ca. 425, after the West had been overrun by barbarian tribes.^[116] However, it appears that the western section was compiled at various times, and several times revised, in the period ca. 400-25: e.g. the dispositions for Britain must date from before 410, as that is when Roman forces withdrew from Britain definitively.^[111] This reflects the confusion of the times, with the dispositions of armies and commands constantly changing to reflect the needs of the moment e.g. the large *comitatus* in Spain, which was not a border diocese, but had in these years to contend with invasions of Visigoths, Suevi, Alans and Vandals. In consequence, the West section of the *Notitia* does not represent the western command structure as it stood in 395 (for which the eastern structure is a better guide). Also, whereas the eastern section represents a beginning (the essential structure of the East Roman army, which lasted at least ca. 550), the western section represents an army in crisis and close to its demise. The scale of the chaos in this period is illustrated by Heather's analysis of units in the army of the West. Of 181 *comitatus* regiments listed for 425, only 84 existed before 395; and many regiments in the *comitatus* were simply upgraded *limitanei* units, implying the destruction or dissolution of around 76 *comitatus* regiments during the period 395-425.^[117] By 460, the western army had largely dissolved.

The western structure differed substantially from the eastern. In the West, the emperor was not in direct control of his regional *comitatus* chiefs, who instead reported to a military supremo, whose title is given in the *Notitia* as the *magister peditum praesentalis* (literally: "master of infantry in the emperor's presence"), but is known from other evidence to have usually held the equivalent title of *magister utriusque militiae* (abbreviation: MVM, literally "master of both services", i.e. of both cavalry and infantry). This officer was effectively the supreme commander of all western forces, in direct command, with a deputy named in the *Notitia* as *magister equitum praesentalis*, of the single but large western imperial escort army. Subordinate to the MVM were all the diocesan *comitatus* commanders in the West: Gaul, Britannia, Illyricum (West), Africa, Tingitania and Hispania. In contrast to their eastern counterparts, who all held *magister militum* rank, the commanders of the Western regional *comitatus* were all of the lower *comes* rank, save for the *magister equitum per Gallias*. This was presumably because all but the Gaul *comitatus* were smaller than the 20–30,000 typically commanded by a *magister militum*. This anomalous structure, with the emperor sidelined by a generalissimo, had arisen through the ascendancy of the half-Vandal military strongman Stilicho (395–408), who was appointed by Theodosius I as guardian of his infant son and successor Honorius. After Stilicho's death in 408, a succession of weak emperors ensured that this position continued, under Stilicho's successors (especially Aetius and Ricimer), until the dissolution of the Western empire in 476.^[118]

According to the *Notitia*, all but two of the 12 Western *duces* also reported directly to the MVM and not to their regional *comes*.^{[111][119]} However, this is out of line with the situation in the East and probably does not reflect the situation in 395 or indeed in 425. It would clearly have been an impractical arrangement, as the lack of an overall theatre commander would have rendered effective joint operations between *comitatus* and border armies impossible. The chaotic period 406-25 probably resulted in repeated *ad hoc* changes in reporting relationships to suit the needs of the moment. Faced with the confusing data of previous drafts, the final redactor of the *Notitia* presumably decided on the simple solution of showing all these officers as reporting directly to the MVM. However, a trace of the true organisation survives: the *Notitia* shows the *duces* of *Caesariensis* and *Tripolitania* as reporting to the *comes Africae*.^[111] The western organisation chart here lists the *duces* under their respective diocesan senior officer, to reflect the likely position.^[82] The only *dux* who is likely to have reported to the MVM direct was the *dux Raetiae I et II*, whose provinces belonged to the diocese of Italia.

Scholae

In both East and West, the *scholae*, the emperors' personal cavalry escort, lay outside the normal military chain of command. According to the *Notitia*, the *tribuni* (commanders) of the *scholae* reported to the *magister officiorum*, a senior civilian official.^[120] However, this was probably for administrative purposes only. On campaign, a *tribunus scholae* probably reported direct to the emperor himself.^[73]

Bases

Comitatus troops and border troops had different accommodation arrangements. Most border units were based in forts as were their predecessors, the auxiliary regiments of the Principate (indeed, in many cases, the same forts).^[121] Some of the larger *limitanei* units (*legiones* and *vexillationes*) were based in cities, probably in permanent barracks.^[122]

Comitatus troops were also based in cities (when not on campaign: then they would be in temporary camps). But it seems that did not usually occupy purpose-built accommodation like the city-based *limitanei*. From the legal evidence, it seems they were normally compulsorily billeted in private houses (*hospitalitas*).^[123] This is because they often wintered in different provinces. The *comitatus praesentales* accompanied their respective emperors on campaign, while even the regional *comitatus* would change their winter quarters according to operational requirements. However, in the 5th century, emperors rarely campaigned in person, so the *praesentales* became more static in their winter bases.^[124] The Western *comitatus praesentalis* normally was based in and around *Mediolanum* (Milan) and the two Eastern *comitatus* in the vicinity of Constantinople.^[124]

Regiments

The changes to unit structure in the 4th century were reduction of unit sizes and increase in unit numbers, establishment of new unit types and establishment of a hierarchy of units more complex than the old one of legions and auxilia.^[125]

Unit sizes

The evidence for the strength of late army units is very fragmented and equivocal.^[126] The table below gives some recent estimates of unit strength, by unit type and grade:



Shield insignia of regiments under the command of the *Magister Militum Praesentalis II* of the East Roman army ca. 395. Page from the *Notitia Dignitatum*, a medieval copy of a Late Roman register of military commands

Size estimates for units in 4th century army^[127]

Cavalry unit type	Comitatenses (inc. palatini)	Limitanei	XXXXX	Infantry unit type	Comitatenses (inc. palatini)	Limitanei
Ala		120–500		Auxilium	400–1,200	
Cuneus		200–300		Cohors		160–500
Equites		80–300		Legio	800–1,200	500–1,000
Schola*	500			Milites		200–300
Vexillatio	400–600			Numerus		200–300

**Scholares* were not technically *comitatenses*

Much uncertainty remains, especially regarding the size of *limitanei* regiments, as can be seen by the wide ranges of the size estimates. It is also possible, if not likely, that unit strengths changed over the course of the 4th century. For example, it appears that Valentinian I split about 150 *comitatus* units with his brother and co-emperor Valens. The resulting units may have been just half the strength of the parent units (unless a major recruitment drive was held to bring them all up to original strength).^[126]

Scholae are believed to have numbered ca. 500 on the basis of a 6th century reference.^[64]

In the *comitatus*, there is consensus that *vexillationes* were ca. 500 and *legiones* ca. 1,000 strong. The greatest uncertainty concerns the size of the crack *auxilia palatina* infantry regiments, originally formed by Constantine. The evidence is contradictory, suggesting that these units could have been either ca. 500 or ca. 1,000 strong, or somewhere in between.^{[128][129]} If the higher figure were true, then there would be little to distinguish *auxilia* from *legiones*, which is the strongest argument in favour of ca. 500.

For the size of *limitanei* units, opinion is divided. Jones and Elton suggest from the scarce and ambiguous literary evidence that border *legiones* numbered ca. 1,000 men and that the other units contained in the region of 500 men

each.^{[92][130]} Others draw on papyrus and more recent archaeological evidence to argue that *limitanei* units probably averaged about half the Jones/Elton strength i.e. ca. 500 for *legiones* and around 250 for other units.^{[76][131]}

Unit types

Scholae

Despite existing from the early 4th century, the only full list of *scholae* available is in the *Notitia*, which shows the position at the end of the 4th century/early 5th century. At that time, there were 12 *scholae*, of which 5 were assigned to the Western emperor and 7 to the Eastern. These regiments of imperial escort cavalry would have totalled ca. 6,000 men, compared to 2,000 *equites singulares Augusti* in the late 2nd century.^[9] The great majority (10) of the *scholae* were "conventional" cavalry, armoured in a manner similar to the *alae* of the Principate, carrying the titles *scutarii* ("shield-men"), *armaturae* ("armour" or "harnesses") or *gentiles* ("natives"). These terms appear to have become purely honorific, although they may originally have denoted special equipment or ethnic composition (*gentiles* was a term used to describe barbarian tribesmen admitted to the empire on condition of military service). Only two *scholae*, both in the East, were specialised units: a *schola* of *clibanarii* (cataphracts, or heavily armoured cavalry), and a unit of mounted archers (*sagittarii*).^{[132][133]} 40 select troops from the *scholae*, called *candidati* from their white uniforms, acted as the emperor's personal bodyguards.^[73]

Comitatenses (inc. palatini)

In the *comitatus* armies (both escort and regional) cavalry regiments were known as *vexillationes*, infantry regiments as either *legiones* or *auxilia*.^[89] *Auxilia* were only graded as *palatini*, emphasising their elite status, while the *legiones* are graded either *palatini* or *comitatenses*.^[111]

The majority of Roman cavalry regiments in the *comitatus* (61%) remained of the traditional semi-armoured type, similar in equipment and tactical role to the *alae* of the Principate and suitable for mêlée combat. These regiments carry a variety of titles: *comites*, *equites scutarii*, *equites stabilesiani* or *equites promoti*. Again, these titles are probably purely traditional, and do not indicate different unit types or functions.^[17] 24% of regiments were unarmoured light cavalry, denoted *equites Dalmatae*, *Mauri* or *sagittarii* (mounted archers), suitable for harassment and pursuit. *Mauri* light horse had served Rome as auxiliaries since the Second Punic War 500 years before. *Equites Dalmatae*, on the other hand, seem to have been regiments first raised in the 3rd century. 15% of *comitatus* cavalry regiments were heavily armoured *cataphracti* or *clibanarii*, which were suitable for the shock charge (all but one such squadrons are listed as *comitatus* regiments by the *Notitia*).^[134]

Infantry regiments mostly fought in close order as did their Principate forebears. Infantry equipment was broadly similar to the that of auxiliaries in the 2nd century, with some modifications (see Equipment, below).^[17]

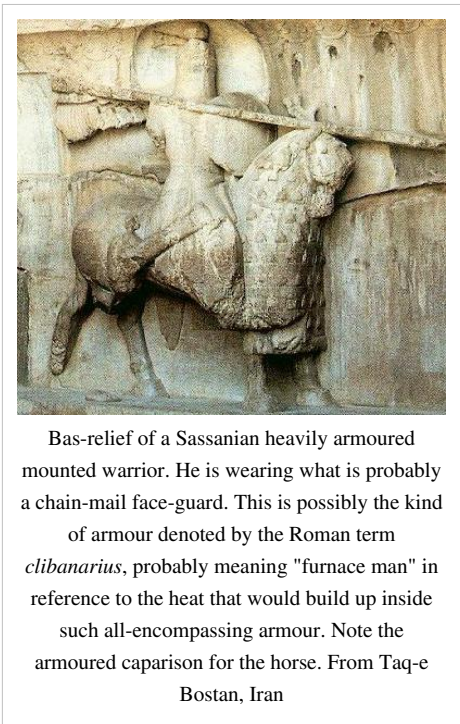
Limitanei

In the *limitanei* forces, most types of regiment were present. For infantry, there are regiments called *milites*, *numeri* and *auxilia* as well as old-style *legiones* and *cohortes*. Cavalry regiments are called *equites*, *cunei* and old-style *alae*.^[130]





The evidence is that *comitatenses* regiments were considered of higher quality than *limitanei*. But the difference should not be exaggerated. Suggestions have been made that the *limitanei* were a part-time militia of local farmers, of poor combat capability.^[135] This view is rejected by many modern scholars.^{[130][136][137]} The evidence is that *limitanei* were full-time professionals.^[138] They were charged with combating the incessant small-scale barbarian raids that were the empire's enduring security problem.^[139] It is therefore likely that their combat readiness and experience were high. This was demonstrated at the siege of Amida (359) where the besieged frontier legions resisted the Persians with great skill and tenacity.^[140] Elton suggests that the lack of mention in the sources of barbarian incursions less than 400-strong implies that such were routinely dealt with by the border forces without the need of assistance from the *comitatus*.^[141] *Limitanei* regiments often joined the *comitatus* for specific campaigns,

and were sometimes retained by the *comitatus* long-term with the title of *pseudocomitatenses*, implying adequate combat capability.^[138]

Specialists



Bas-relief of a Sassanian heavily armoured mounted warrior. He is wearing what is probably a chain-mail face-guard. This is possibly the kind of armour denoted by the Roman term *clibanarius*, probably meaning "furnace man" in reference to the heat that would build up inside such all-encompassing armour. Note the armoured caparison for the horse. From Taq-e Bostan, Iran

 External images	
	Roman cataphract cavalryman ^{[142][143]}
	Reenactor as Roman cataphract ^{[144][145]}
	Reenactor as Late Roman archer ^{[146][147]}

The late Roman army contained a significant number of heavily armoured cavalry called *cataphractarii* (from the Greek *kataphraktos*, meaning "covered all over"). They were covered from neck to foot by a combination of scale and/or lamellar armour for the torso and laminated defences for the limbs (see *manica*), and their horses were often armoured also. Cataphracts carried a long, heavy lance called a *contus*, ca. 3.65 m (**unknown operator: u'strong'** ft) long, that was held in both hands. Some also carried bows.^[148] The central tactic of cataphracts was the shock charge, which aimed to break the enemy line by concentrating overwhelming force on a defined section of it. A type of cataphract called a *clibanarius* also appears in the 4th century record. This term may be derived from Greek *klibanos* (a bread oven) or from a Persian word. It is likely that *clibanarius* is simply an alternative term to cataphract, or it may have been a special type of cataphract.^[17] This type of cavalry had been developed by the Iranic horse-based nomadic tribes of the Eurasian steppes from the 6th-century BC onwards: the Scythians and their kinsmen the Sarmatians. The type was adopted by the Parthians in the 1st century BC and later by the Romans, who needed it to counter Parthians in the East and the Sarmatians along the Danube.^[149] The first regiment of Roman cataphracts to appear in the archaeological record is the *ala I Gallorum et Pannoniorum cataphractaria*, attested in Pannonia in the early 2nd century.^[150] Although Roman cataphracts were not new, they were far more numerous in the late army, with most regiments stationed in the East.^[151]

Archer units are denoted in the *Notitia* by the term *equites sagittarii* (mounted archers) and *sagittarii* (foot archers, from *sagitta* = "arrow"). As in the Principate, it is likely that many non-*sagittarii* regiments also contained some

archers. Mounted archers appear to have been exclusively in light cavalry units.^[17] Archer units, both foot and mounted, were present in the *comitatus*.^[152] In the border forces, only mounted archers are listed in the *Notitia*, which may indicate that many *limitanei* infantry regiments contained their own archers.^[153]

A distinctive feature of the late army is the appearance of independent units of artillery, which during the Principate appears to have been integral to the legions. Called *ballistarii* (from *ballista* = "catapult"), 7 such units are listed in the *Notitia*, all but one belonging to the *comitatus*. But a number are denoted *pseudocomitatenses*, implying that they originally belonged to the border forces. The purpose of independent artillery units was presumably to permit heavy concentration of firepower, especially useful for sieges. However, it is likely that many ordinary regiments continued to possess integral artillery, especially in the border forces.^[154]

The *Notitia* lists a few units of presumably light infantry with names denoting specialist function: *superventores* and *praeventores* ("interceptors") *exculcatores* ("trackers"), *exploratores* ("scouts"). At the same time, Ammianus describes light-armed troops with various terms: *velites*, *leves armaturae*, *exculcatores*, *expediti*. It is unclear from the context whether any of these were independent units, specialist sub-units, or indeed just detachments of ordinary troops specially armed for a particular operation.^[155] The *Notitia* evidence implies that, at least in some cases, Ammianus could be referring to independent units.

Foederati

Outside the regular army were substantial numbers of allied forces, generally known as *foederati* (from *foedus* = "treaty") or *symmachi* in the East. The latter were forces supplied either by barbarian chiefs under their treaty of alliance with Rome or *dediticii*.^[156] Such forces were employed by the Romans throughout imperial history e.g. the battle scenes from Trajan's Column in Rome show that *foederati* troops played an important part in the Dacian Wars (101–6).^[157]

In the 4th century, as during the Principate, these forces were organised into ill-defined units based on a single ethnic group called *numeri* ("troops", although *numerus* was also the name of a regular infantry unit).^[158] They served alongside the regular army for the duration of particular campaigns or for a specified period. Normally their service would be limited to the region where the tribe lived, but sometimes could be deployed elsewhere.^[159] They were commanded by their own leaders. It is unclear whether they used their own weapons and armour or the standard equipment of the Roman army. In the late army, the more useful and long-serving *numeri* appear to have been absorbed into the regular late army, rapidly becoming indistinguishable from other units.^[160]

Recruitment

Romans

During the Principate, it appears that most recruits, both legionary and auxiliary, were volunteers (*voluntarii*). Compulsory conscription (*dilectus*) was never wholly abandoned, but was generally only used in emergencies or before major campaigns when large numbers of additional troops were required.^[161] In marked contrast, the late army relied mainly on compulsion for its recruitment of Roman citizens. Firstly, the sons of serving soldiers or veterans were required by law to enlist. Secondly, a regular annual levy was held based on the *indictio* (land tax assessment). Depending on the amount of land tax due on his estates, a landowner (or group of landowners) would be required to provide a commensurate number of recruits to the army. Naturally, landowners had a strong incentive to keep their best young men to work on their estates, sending the less fit or reliable for military service. There is also evidence that they tried to cheat the draft by offering the sons of soldiers (who were liable to serve anyway) and vagrants (*vagi*) to fulfil their quota.^[44]

However, conscription was not in practice universal. Firstly, a land-based levy meant recruits were exclusively the sons of peasants, as opposed to townspeople.^[44] Thus some 20% of the empire's population was excluded.^[162] In addition, as during the Principate, slaves were not admissible. Nor were freedmen and persons in certain occupations

such as bakers and innkeepers. In addition, provincial officials and *curiales* (city council members) could not enlist. These rules were relaxed only in emergencies, as during the military crisis of 405–6 (Radagaisus' invasion of Italy and the great barbarian invasion of Gaul).^[163] Most importantly, the conscription requirement was often commuted into a cash levy, at a fixed rate per recruit due. This was done for certain provinces, in certain years, although the specific details are largely unknown. It appears from the very slim available evidence that conscription was not applied evenly across provinces but concentrated heavily in the army's traditional recruiting areas of Gaul (including the two *Germaniae* provinces along the Rhine) and the Danubian provinces, with other regions presumably often commuted. An analysis of the known origins of *comitatenses* in the period 350–476 shows that in the Western army, the Illyricum and Gaul dioceses together provided 52% of total recruits. Overall, the Danubian regions provided nearly half of the whole army's recruits, despite containing only three of the 12 dioceses.^[164] This picture is much in line with the 2nd century position.^[165]

Prospective recruits had to undergo an examination. Recruits had to be 20–25 years of age, a range that was extended to 19–35 in the later 4th century. Recruits had to be physically fit and meet the traditional minimum height requirement of 6 Roman feet (5 ft 10in, 175 cm) until 367, when it was reduced to 5 Roman feet and 3 Roman palms (5 ft 7in, 167 cm).^[166]

Once a recruit was accepted, he was branded to facilitate recognition if he attempted to desert. The recruit was then issued with an identification disk (which was worn around the neck) and a certificate of enlistment (*probatoria*). He was then assigned to a unit. A law of 375 required those with superior fitness to be assigned to the *comitatenses*.^[167] In the 4th century, the minimum length of service was 20 years (24 years in some *limitanei* units).^[168] This compares with 25 years in both legions and auxilia during the Principate.

The widespread use of conscription, the compulsory recruitment of soldiers' sons, the relaxation of age and height requirements and the branding of recruits all add up to a picture of an army that had severe difficulties in finding, and retaining, sufficient recruits.^[169] Recruitment difficulties are confirmed in the legal code evidence: there are measures to deal with cases of self-mutilation to avoid military service (such as cutting off a thumb), including an extreme decree of 386 requiring such persons to be burnt alive.^[168] Desertion was clearly a serious problem, and was probably much worse than in the Principate army, since the latter was mainly a volunteer army. This is supported by the fact that the granting of leave of absence (*commeatus*) was more strictly regulated. While in the 2nd century, a soldier's leave was granted at the discretion of his regimental commander, in the 4th century, leave could only be granted by a far senior officer (*dux*, *comes* or *magister militum*).^{[170][171]} In addition, it appears that *comitatus* units were typically one-third understrength.^[172] The massive disparity between official and actual strength is powerful evidence of recruitment problems. Against this, Elton argues that the late army did not have serious recruitment problems, on the basis of the large numbers of exemptions from conscription that were granted.^[173]

Barbarians

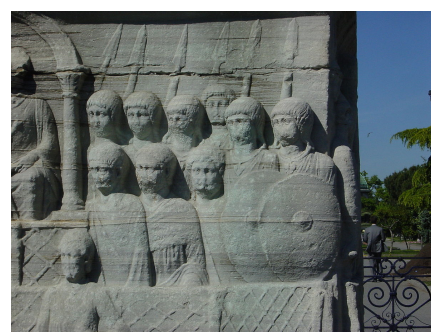
Barbari ("barbarians") was the generic term used by the Romans to denote peoples resident beyond the borders of the empire, and best translates as "foreigners" (it is derived from a Greek word meaning "to babble": a reference to their outlandish tongues).

Most scholars believe that significant numbers of *barbari* were recruited throughout the Principate by the auxilia (the legions were closed to non-citizens).^{[168][174]} However, there is little evidence of this before the 3rd century. The scant evidence suggests that the vast majority, if not all, of auxilia were Roman peregrini (second-class citizens) or Roman citizens.^[175] In any case, the 4th-century army was probably much more dependent on barbarian recruitment than its 1st/2nd-century predecessor. The evidence for this may be summarised as follows:

1. The *Notitia* lists a number of barbarian military settlements in the empire. Known as *laeti* or *gentiles* ("natives"), these were an important source of recruits for the army. Groups of Germanic or Sarmatian tribespeople were granted land to settle in the Empire, in return for military service. Most likely each community was under a treaty obligation to supply a specified number of troops to the army each year.^[168] The resettlement within the empire of barbarian tribespeople in return for military service was not a new phenomenon in the 4th century: it stretches back to the days of Augustus.^[176] But it does appear that the establishment of military settlements was more systematic and on a much larger scale in the 4th century.^[177]
2. The *Notitia* lists a large number of units with barbarian names. This was probably the result of the transformation of irregular allied units serving under their own native officers (known as *socii*, or *foederati*) into regular formations. During the Principate, regular units with barbarian names are not attested until the 3rd century and even then rarely e.g. the *ala I Sarmatarum* attested in 3rd-century Britain, doubtless an offshoot of the Sarmatian horsemen posted there in 175.^[178]
3. The emergence of significant numbers of senior officers with barbarian names in the regular army, and eventually in the high command itself. In the early 5th century, the Western Roman forces were often controlled by barbarian-born generals, such as Arbogast, Stilicho and Ricimer.^[179]
4. The adoption by the 4th century army of barbarian (especially Germanic) dress, customs and culture, suggesting enhanced barbarian influence. For example, Roman army units adopted mock barbarian names e.g. *Cornuti* = "horned ones", a reference to the German custom of attaching horns to their helmets, and the *barritus*, a German warcry. Long hair became fashionable, especially in the *palatini* regiments, where barbarian-born recruits were numerous.^[180]

Quantification of the proportion of barbarian-born troops in the 4th century army is highly speculative. Elton has the most detailed analysis of the meagre evidence. According to this, about a quarter of the sample of army officers was barbarian-born in the period 350–400. Analysis by decade shows that this proportion did not increase over the period, or indeed in the early 5th century. The latter trend implies that the proportion of barbarians in the lower ranks was not much greater, otherwise the proportion of barbarian officers would have increased over time to reflect that.^[181]

If the proportion of barbarians was in the region of 25%, then it is probably much higher than in the 2nd-century regular army. If the same proportion had been recruited into the auxilia of the 2nd-century army, then in excess of 40% of recruits would have been barbarian-born, since the auxilia constituted 60% of the regular land army.^[8] There



Late Roman soldiers, probably barbarians, as depicted (back row) by bas-relief on the base of Theodosius I's obelisk in Constantinople (ca. 390). The troops belong to a regiment of *palatini* as they are here detailed to guard the emperor (left). More than third of soldiers in the *palatini* were barbarian-born by this time. Note the necklaces with regimental pendants and the long hair, a style imported by barbarian recruits, in contrast to the short hair norm of the Principate

is no evidence that recruitment of barbarians was on such a large scale in the 2nd century.^[33] An analysis of named soldiers of non-Roman origin shows that 75% were Germanic: Franks, Alamanni, Saxons, Goths, and Vandals are attested in the *Notitia* unit names.^[182] Other significant sources of recruits were the Sarmatians from the Danubian lands; and Armenians and Iberians from the Caucasus region.^[183]

In contrast to Roman recruits, the vast majority of barbarian recruits were probably volunteers, drawn by conditions of service and career prospects that to them probably appeared desirable, in contrast to their living conditions at home. A minority of barbarian recruits were enlisted by compulsion, namely *dediticii* (barbarians who surrendered to the Roman authorities, often to escape strife with neighbouring tribes) and tribes who were defeated by the Romans, and obliged, as a condition of peace, to undertake to provide a specified number of recruits annually. Barbarians could be recruited directly, as individuals enrolled into regular regiments, or indirectly, as members of irregular *foederati* units transformed into regular regiments.^[184]

Ranks, pay and benefits

Common soldiers

At the base of the rank pyramid were the common soldiers: *pedes* (infantryman) and *eques* (cavalryman). Unlike his 2nd century counterpart, the 4th-century soldier's food and equipment was not deducted from his salary (*stipendium*), but was provided free.^[185] This is because the *stipendium*, paid in debased silver *denarii*, was under Diocletian worth far less than in the 2nd century. It lost its residual value under Constantine and ceased to be paid regularly in mid 4th century.^[186]

The soldier's sole substantial disposable income came from the *donativa*, or cash bonuses handed out periodically by the emperors, as these were paid in gold *solidi* (which were never debased), or in pure silver. There was a regular donative of 5 *solidi* every five years of an *Augustus* reign (i.e. one *solidus* p.a.) Also, on the accession of a new *Augustus*, 5 *solidi* plus a pound of silver (worth 4 *solidi*, totaling 9 *solidi*) were paid. The 12 *Augusti* that ruled the West between 284 and 395 averaged about nine years per reign. Thus the accession donatives would have averaged about 1 *solidus* p.a. The late soldier's disposable income would thus have averaged at least 2 *solidi* per annum. It is also possible, but undocumented, that the accession bonus was paid for each *Augustus* and/or a bonus for each *Caesar*.^[187] The documented income of 2 *solidi* was only a quarter of the disposable income of a 2nd-century legionary (which was the equivalent of ca. 8 *solidi*).^[188] The late soldier's discharge package (which included a small plot of land) was also minuscule compared with a 2nd-century legionary's, worth just a tenth of the latter's.^{[189][190]}

Despite the disparity with the Principate, Jones and Elton argue that 4th century remuneration was attractive compared to the hard reality of existence at subsistence level that most recruits' peasant families had to endure.^[191] Against that has to be set the clear unpopularity of military service.

However, pay would have been much more attractive in higher-grade units. The top of the pay pyramid were the *scholae* elite cavalry regiments. Next came *palatini* units, then *comitatenses*, and finally *limitanei*. There is little evidence about the pay differentials between grades. But that they were substantial is shown by the example that an *actuarius* (quartermaster) of a *comitatus* regiment was paid 50% more than his counterpart in a *pseudocomitatensis* regiment.^[192]

Regimental officers

Regimental officer grades in old-style units (*legiones*, *alae* and *cohortes*) remained the same as under the Principate up to and including centurion and decurion. In the new-style units, (*vexillationes*, *auxilia*, etc.), ranks with quite different names are attested, seemingly modelled on the titles of local authority bureaucrats.^[193] So little is known about these ranks that it is impossible to equate them with the traditional ranks with any certainty. Vegetius states that the *ducenarius* commanded, as the name implies, 200 men. If so, the *centenarius* may have been the equivalent of a centurion in the old-style units.^[194] Probably the most accurate comparison is by known pay levels:

REGIMENTAL OFFICERS IN THE 4th CENTURY ARMY^[195]

Multiple of basic pay (2nd c.) or annona (4th c.)	2nd c. cohorts (ascending ranks)	2nd c. ala (ascending ranks)	XXX	4th c. units (ascending ranks)
1	<i>pedes</i> (infantryman)	<i>gregalis</i> (cavalryman)		<i>pedes (eques)</i>
1.5	<i>tesserarius</i> ("corporal")	<i>sesquiplicarius</i> ("corporal")		<i>semissalis</i>
2	<i>signifer</i> (<i>centuria</i> standard-bearer) <i>optio</i> (centurion's deputy) <i>vexillarius</i> (cohort standard-bearer)	<i>signifer</i> (<i>turma</i> standard-bearer) <i>curator?</i> (decurion's deputy) <i>vexillarius</i> (<i>ala</i> standard-bearer)		<i>circitor</i> <i>biarchus</i>
2.5 to 5				<i>centenarius</i> (2.5) <i>ducenarius</i> (3.5) <i>senator</i> (4) <i>primicerius</i> (5)
Over 5	<i>centurio</i> (centurion) <i>centurio princeps</i> (chief centurion) <i>beneficiarius?</i> (deputy cohort commander)	<i>decurio</i> (<i>turma</i> commander) <i>decurio princeps</i> (chief decurion) <i>beneficiarius?</i> (deputy <i>ala</i> commander)		

NOTE: Ranks correspond only in pay scale, not necessarily in function

The table shows that the pay differentials enjoyed by the senior officers of a 4th-century regiment were much smaller than those of their 2nd-century counterparts, a position in line with the smaller remuneration enjoyed by 4th-century high administrative officials.

Regimental and corps commanders

REGIMENTAL AND CORPS COMMANDERS THE 4TH CENTURY ARMY^[196]

Pay scale (multiple of <i>pedes</i>)	Rank (ascending order)	No. of posts (<i>Notitia</i>)	Job description
12	<i>Protector</i>	Several hundreds (200 in <i>domestici</i> under Julian)	cadet regimental commander
n.a.	<i>Tribunus</i> (or <i>praefectus</i>)	ca. 800	regimental commander
n.a.	<i>Tribunus comes</i>	n.a.	(i) commander, <i>protectores domestici</i> (<i>comes domesticorum</i>) (ii) commander, brigade of two twinned regiments or (iii) some (later all) <i>tribuni</i> of <i>scholae</i> (iv) some staff officers (<i>tribuni vacantes</i>) to <i>magister</i> or emperor
100	<i>Dux</i> (or, rarely, <i>comes</i>) <i>limitis</i>	27	border army commander
n.a.	<i>Comes rei militaris</i>	7	(i) commander, smaller regional <i>comitatus</i>
n.a.	<i>Magister militum</i> (<i>magister equitum</i> in West)	4	commander, larger regional <i>comitatus</i>
n.a.	<i>Magister militum praesentalis</i> (<i>magister utriusque militiae</i> in West)	3	commander, imperial escort army

The table above indicates the ranks of officers who held a commission (*sacra epistula*, lit: "solemn letter"). This was presented to the recipient by the emperor in person at a dedicated ceremony.^[197]

Cadet regimental commanders (*protectores*)

A significant innovation of the 4th century was the corps of *protectores*, which contained cadet senior officers. Although *protectores* were supposed to be soldiers who had risen through the ranks by meritorious service, it became a widespread practice to admit to the corps young men from outside the army (often the sons of senior officers). The *protectores* formed a corps that was both an officer training-school and pool of staff officers available to carry out special tasks for the *magistri militum* or the emperor. Those attached to the emperor were known as *protectores domestici* and organised in four *scholae* under a *comes domesticorum*. After a few years' service in the corps, a *protector* would normally be granted a commission by the emperor and placed in command of a military regiment.^[199]

Regimental commanders (*tribuni*)

Regimental commanders were known by one of three possible titles: *tribunus* (for *comitatus* regiments plus border *cohortes*), *praefectus* (most other *limitanei* regiments) or *praepositus* (for *milites* and some ethnic allied units).^{[200][201]} However, *tribunus* was used colloquially to denote the commander of any regiment. Although most *tribuni* were appointed from the corps of *protectores*, a minority, again mainly the sons of high-ranking serving officers, were directly commissioned outsiders.^[202] The status of regimental commanders varied enormously depending on the grade of their unit. At the top end, some commanders of *scholae* were granted the noble title of *comes*, a practice which became standard after 400.^[203]

Senior regimental commanders (*tribuni comites*)

The *comitiva* or "Order of Companions (of the emperor)", was an order of nobility established by Constantine I to honour senior administrative and military officials, especially in the imperial entourage. It partly overlapped with the established orders of Senators and of Knights, in that it could be awarded to members of either (or of neither). It was divided into three grades, of which only the first, *comes primi ordinis*, retained any value beyond AD 450, due to excessive grant. In many cases, the title was granted *ex officio*, but it could also be purely honorary.^[204]

In the military sphere, the title was granted to a group of senior *tribuni*. These included (1) the commander of the *protectores domestici*, whose original title is unknown, but who by 350 was known simply as the *comes domesticorum*;^[205] (2) some *tribuni* of *scholae*: after ca. 400, *scholae* commanders were routinely granted the title on appointment;^[206] (3) the commanders of a brigade of two twinned *comitatus* regiments were apparently styled *comites*. (Such twinned regiments would always operate and transfer together e.g. the legions *Ioviani* and *Herculiani*);^[207] (4) finally, some tribunes without a regimental command (*tribuni vacantes*), who served as staff officers to the emperor or a *magister militum*, might be granted the title.^[206] Although all these officers shared the title of *comes primi ordinis*, which carried senatorial rank, they were not equal in military rank with a *comes rei militaris*, who was a corps commander (usually of a smaller regional *comitatus*), rather than the commander of only one or two regiments (or none).



Detail of a 4th-century mosaic showing a hunting scene. The figures are probably Roman military officers, wearing the typical non-combat uniform (i.e. without armour and helmets, but with shield and spear) of late soldiers. (Throughout the imperial era, soldiers were usually portrayed in non-combat mode).^[198] Note the off-white, long-sleeved tunics. The swastika embroidered on the left tunic was a mystical symbol, probably of Indo-European origin, representing the universe and was commonly used by the Romans as a decorative motif. Note also the military cloak (*chlamys*) and trousers. The pattern on the shield indicated the bearer's regiment. Note the bands embroidered on the sleeves and shoulders. From Piazza Armerina, Sicily

Corps commanders (*duces, comites rei militaris, magistri militum*)

The commanders of army corps, composed of several regiments, were known as (in ascending order of rank): *duces limitis*, *comites rei militaris*, and *magistri militum*.

Duces (or, rarely, *comites*) *limitis*, were in command of the troops (*limitanei*), and fluvial flotillas, deployed in one or more border provinces. Until the time of Constantine I, the *duces* reported to the *vicarius* of the diocese in which their forces were deployed. After ca. 360, the *duces* generally reported to the commander of the *comitatus* deployed in their diocese (whether a *magister militum* or *comes*).^[72] However, they were entitled to correspond directly with the emperor, as various imperial rescripts show. A few border commanders were, exceptionally, styled *comes* e.g. the *comes litoris Saxonici* ("Count of the Saxon Shore") in Britain.^[208]

Comites rei militaris were generally in command of the smaller regional *comitatus* (of under 15,000 men). By the time of the *Notitia*, *comites* were mainly found in the West, because of the fragmentation of the western *comitatus* into a number of smaller groups. In the East, there were 2 *comites rei militaris*, in command of Egypt and Isauria. Exceptionally, these men were in command of *limitanei* regiments only. Their title may be due to the fact that they reported, at the time to the *Notitia*, to the emperor direct (later they reported to the *magister militum per Orientem*).

Magister militum was a title used interchangeably with *magister utriusque militiae*, *magister equitum* and *magister peditum* (the same individual is often given ascribed such titles in the ancient sources). A *magister militum* commanded the larger regional *comitatus* (normally over 20,000-strong). The higher rank of *magister militum praesentalis* was accorded to the commanders of imperial escort armies. A *magister militum* was also in command of the *duces* in the diocese where his *comitatus* was deployed.

It is unknown what proportion of the corps commanders had risen from the ranks, but it is likely to have been small as most rankers would be nearing retirement age by the time they were given command of a regiment and would go no further.^[209] In contrast, directly commissioned *protectores* and *tribuni* dominated the higher echelons, as they were usually young men when they started. For such men, promotion to corps command could be swift e.g. the future emperor Theodosius I was a *dux* at age 28.^[210] It was also possible for rungs on the rank ladder to be skipped. Commanders of *scholae*, who enjoyed direct access to the emperor, often reached the highest rank of *magister militum*. The barbarian-born Agilo was promoted direct to *magister militum* from *tribunus* of a *schola* in 360.^[206]

Equipment

The basic equipment of a 4th-century foot soldier was essentially the same as in the 2nd century: metal armour cuirass, metal helmet, shield and sword.^[211] Some evolution took place during the 3rd century. Trends included the adoption of warmer clothing; the disappearance of distinctive legionary armour and weapons; the adoption by the infantry of equipment used by the cavalry in the earlier period; and the greater use of heavily armoured cavalry called cataphracts.

Clothing

In the 1st and 2nd centuries, a Roman soldier's clothes consisted of a single-piece, short-sleeved tunic whose hem reached the knees and special hobnailed sandals (*caligae*). This attire, which left the arms and legs bare, had evolved in a Mediterranean climate and was not suitable for northern Europe in cold weather. In northern Europe, long-sleeved tunics, trousers (*bracae*), socks (worn inside the *caligae*) and laced boots were commonly worn in winter from the 1st century. During the 3rd century, these items of clothing became much more widespread, apparently common in Mediterranean provinces also.^[212] However, it is likely that in warmer weather, trousers were dispensed with and *caligae* worn instead of socks and boots.^[213] Late Roman clothing was often highly decorated, with woven or embroidered strips, *clavi*, and circular roundels, *orbiculi*, added to tunics and cloaks. These decorative elements usually consisted of geometrical patterns and stylised plant motifs, but could include human or animal figures.^[214] A distinctive part of a soldier's costume, though it seems to have also been worn by non-military bureaucrats, was a type of round, brimless hat known as the pannonian cap (*pileus pannonicus*).^[215]

Armour

Legionary soldiers of the 1st and 2nd centuries had exclusive use of the *lorica segmentata* or laminated-strip cuirass which was a complex piece of armour which provided superior protection to the other types of Roman armour, chain mail (*lorica hamata*) and scale armour (*lorica squamata*). Testing of modern replicas have demonstrated that this kind of armour was impenetrable to most direct and missile strikes. It was, however, uncomfortable: reenactors have discovered that chafing renders it painful to wear for longer than a few hours at a time. It was also expensive to produce and difficult to maintain.^[216] In the 3rd century, the *segmentata* appears to have been dropped and troops are depicted wearing chain mail (mainly) or scale, the standard armour of the 2nd century auxilia. The artistic record shows that most late soldiers wore metal armour, despite Vegetius' statement to the



Frieze (bottom) showing Constantine I's cavalry driving Maxentius' troops into the River Tiber at the Battle of the Milvian Bridge (312). The image proves that 4th century soldiers wore metal body armour (the Maxentian soldiers are wearing either mail or scale, it is unclear which). The Constantinian cavalry is apparently unarmoured, probably because these were units of Illyrian light cavalry (*equites Dalmatae*) and mounted archers. Detail from the Arch of Constantine, Rome



Detail of bas-relief on base of former Column of Theodosius in Constantinople (Istanbul). Date ca. 390. Roman soldiers in action. Note soldier at centre had an Intercisa-style helmet with iron crest (prob. indicating officer rank) and is wearing chain-mail or scale armour, evidence that Vegetius's claim that infantry dropped helmets and armour in the later 4th c. is mistaken. Istanbul Archaeological Museum

contrary. For example, illustrations in the *Notitia* show that the army's *fabricae* (arms factories) were producing mail armour at the end of the 4th century.^[217] Actual examples of both scale armour and quite large sections of mail have been recovered, at Trier and Weiler-La-Tour respectively, within 4th century contexts.^[218] Officers generally seem to have worn bronze or iron cuirasses, as in the days of the Principate, together with traditional *pteruges*.^[219] The cataphract and *clibanarii* cavalry, from limited pictorial evidence and especially from the description of these troops by Ammianus, seem to have worn specialist forms of armour. In particular their limbs were protected by laminated defences, made up of curved and overlapping metal segments: "*Laminarum circuli tenues apti corporis flexibus ambiebant per omnia membra diducti*" (Thin circles of iron plates, fitted to the curves of their bodies, completely covered their limbs).^[220]

Helmets

In general, Roman cavalry helmets had enhanced protection, in the form of wider cheek-guards and deeper neck-guards, for the sides and back of the head than infantry helmets. Infantry were less vulnerable in those parts due to their tighter formation when fighting.^[221] During the 3rd century, infantry helmets tended to adopt the more protective features of Principate cavalry helmets. Cheek-guards could often be fastened together over the chin to protect the face, and covered the ears save for a slit to permit hearing e.g. the "Auxiliary E" type or its Niederbieber variant. Cavalry helmets became even more enclosed e.g. the "Hedderheim" type, which is close to the medieval great helm, but at the cost much reduced vision and hearing.^[222]

In contrast, some infantry helmets in the 4th century reverted to the more open features of the main Principate type, the "Imperial Gallic". The "Intercisa" design left the face unobstructed and had ear-holes in the join between cheek-guards and bowl to allow good hearing. In a radical change from the earlier single-bowl design, the Intercisa bowl was made of two separate pieces joined by a riveted ridge in the middle (hence the term "ridge helmet"). It was simpler and cheaper to manufacture, and therefore probably by far the most common type, but structurally weaker and therefore offered less effective protection.^[223] A more protective ridge helmet, with nose-guard and ear-holes, was the "Burgh Castle" type (with ear-holes) and its Concești variant, which is probably the cavalry version, as it lacks ear-holes. Face-guards of mail or in the form of metal 'anthropomorphic masks,' with eye-holes, were often added to the helmets of the heaviest forms of cavalry, especially *cataphracti*.^[224]

Despite the apparent cheapness of manufacture of their basic components, many surviving examples of Late Roman helmets, including the Intercisa type, show evidence of expensive decoration in the form of silver or silver-gilt sheathing.^{[225][226]} A possible explanation is that most of the surviving exemplars may have belonged to officers and that silver- or gold-plating denoted rank; and, in the case of mounted gemstones, high rank e.g. the ornate Deurne helmet, believed by some historians to have belonged to a senior officer.^[194] Other academics, in contrast, consider that silver-sheathed helmets may have been widely worn by *comitatus* soldiers, given as a form of pay or reward.^[227]



Late Roman helmet

Shields

The legionary *scutum*, a convex rectangular shield also disappeared during the 3rd century. All troops adopted the auxiliary oval (or sometimes round) shield (*clipeus*).^[228] Shields, from examples found at Dura and Nydam, were of vertical plank construction, the planks glued, and faced inside and out with painted leather. The edges of the shield were bound with stitched rawhide, which shrank as it dried improving structural cohesion. It was also lighter than the edging of copper alloy used in earlier Roman shields.^[229]

Hand weapons

The *gladius*, a short (median length: 460 mm) stabbing-sword that was designed for close-quarters fighting, and was standard for the Principate infantry (both legionary and auxiliary), also was phased out during the 3rd century. The infantry adopted the *spatha*, a longer (median length: 760 mm) sword that during the earlier centuries was used by the cavalry only.^[17] In addition, Vegetius mentions the use of a shorter-bladed sword termed a *semispatha*.^[230] At the same time, infantry acquired a heavy thrusting-spear (*hasta*) which became the main close order combat weapon to replace the *gladius*, as the *spatha* was too long to be swung comfortably in tight formation (although it could be used to stab). These trends imply a greater emphasis on fighting the enemy "at arm's length".^[231] In the 4th century, there is no archaeological or artistic evidence of the *pugio* (Roman military dagger), which is attested until the 3rd century. 4th-century graves have yielded short, single-edged knives in conjunction with military belt fittings.^[232]

Missiles

In addition to his thrusting-spear, a late foot soldier might also carry a throwing-spear (*verrutum*) or a *spiculum*, a kind of heavy, long *pilum*, similar to an angon. Alternatively, a couple of short javelins (*lanceae*). Late infantrymen often carried half a dozen lead-weighted throwing-darts called *plumbatae* (from *plumbum* = "lead"), with an effective range of ca. 30 m (**unknown operator: u'strong'** ft), well beyond that of a javelin. The darts were carried clipped to the back of the shield.^[233] The late foot soldier thus had greater missile capability than his Principate predecessor, who was usually limited to just two *pila*.^[234] Late Roman archers continued to use the recurved composite bow as their principal weapon. This was a sophisticated, compact and powerful weapon, suitable for mounted and foot archers alike (the cavalry version being more compact than the infantry's). A small number of archers may have been armed with crossbows (*manuballistae*).^[235]

Supply infrastructure

A critical advantage enjoyed by the late army over all its foreign enemies except the Persians was a highly sophisticated organisation to ensure that the army was properly equipped and supplied on campaign. Like their enemies, the late army could rely on foraging for supplies when campaigning on enemy soil. But this was obviously undesirable on Roman territory and impractical in winter. The empire's complex supply organisation enabled the army to campaign in all seasons and in areas where the enemy employed a "scorched earth" policy.

Supply organisation

The responsibility for supplying the army rested with the *praefectus praetorio* of the operational sector. He in turn controlled a hierarchy of civilian authorities (diocesan *vicarii* and provincial governors), whose agents collected, stored and delivered supplies to the troops direct or to predetermined fortified points.^[236] The quantities involved were enormous and would require lengthy and elaborate planning for major campaigns. A late legion of 1,000 men would require a minimum of 2.3 tonnes of grain-equivalent *every day*.^[237] An imperial escort army of 25,000 men would thus require around 5,000 tonnes of grain-equivalent for three months' campaigning (plus fodder for the horses and pack animals).

Supply transport

Such vast cargoes would be carried by boat as far as possible, by sea and/or river, and only the shortest possible distance overland. That is because transport on water was far more economical than on land (as it remains today, although the differential is smaller).

Land transport of military supplies on the *cursus publicus* (imperial transport service) was typically by wagons (*angariae*), with a maximum legal load of 1,500 lbs (680 kg), drawn by two pairs of oxen.^[238] The payload capacity of most Roman freighter-ships of the period was in the range of 10,000–20,000 *modii* (70–140 tonnes).^[239] Thus, a vessel of median capacity of 100 tonnes, with a 20-man crew, could carry the same load as ca. 150 wagons (which required 150 drivers and 600 oxen, plus pay for the former and fodder for the animals). A merchant ship would also, with a favourable wind, typically travel three times faster than the typical 3 km/h (**unknown operator: u'strong'** mph) achieved by the wagons and for as long as there was daylight, whereas oxen could only haul for at most 5 hours per day. Thus freighters could easily cover 100 km (**unknown operator: u'strong'** mi) per day, compared to ca. 15 km (**unknown operator: u'strong'** mi) by the wagons.^{[240][241]} Against this must be

set the fact that most freighters of this capacity were propelled by square sails only (and no oars). They could only progress if there was a following wind, and could spend many days in port waiting for one. (However, smaller



The products of the *fabricae*, from the *Notitia dignitatum*. The illustration includes: helmets, shields, mail coats, cuirasses and laminated limb defences, plus various weapons.



Full-scale reconstruction of a 4th-century Roman river patrol-boat (*lusoria*), prob. under the command of the *dux* of *Germania I* province. It is based on the remains of one of five late Roman river boats discovered at Moguntiacum in the early 1980s. The boat above, denoted *Mainz Type A*, had a long (22m) and narrow (2.8m) shape for speed and rounded keel to allow access to shallows. It could carry 32 marines, who rowed the boat fully armed (32 oars, 16 on each side). Whilst on board, the soldiers would hang their shields on stands fixed to the gunwhales so as to provide cover from missiles launched from the riverbanks. Museum für Antike Schifffahrt, Mainz, Germany

coastal and fluvial freighters called *actuariae* combined oars with sail and had more flexibility). Maritime transport was also completely suspended for at least four months in the winter (as stormy weather made it too hazardous) and even during the rest of the year, shipwrecks were common.^[242] Nevertheless, the surviving shipping-rates show that it was cheaper to transport a cargo of grain by sea from Syria to Lusitania (i.e. the entire length of the Mediterranean – and a ways beyond – ca. 5,000 km) than just 110 km (**unknown operator: u'strong'** mi) overland.^[240]

On rivers, *actuariae* could operate year-round, except during periods when the rivers were ice-bound or of high water (after heavy rains or thaw), when the river-current was dangerously strong. It is likely that the establishment of the empire's frontier on the Rhine-Danube line was dictated by the logistical need for large rivers to accommodate supply ships more than by defensibility. These rivers were dotted with purpose-built military docks (*portus exceptionales*).^[243] The protection of supply convoys on the rivers was the responsibility of the fluvial flotillas (*classes*) under the command of the riverine *duces*. The *Notitia* gives no information about the Rhine flotillas (as the Rhine frontier had collapsed by the time the Western section was compiled), but mentions 4 *classes Histricae* (Danube flotillas) and 8 other *classes* in tributaries of the Danube. Each flotilla was commanded by a *praefectus classis* who reported to the local *dux*. It appears that each *dux* on the Danube disposed of at least one flotilla (one, the *dux Pannoniae*, controlled three).^[244]

Weapons manufacture

In the 4th century, the production of weapons and equipment was highly centralised (and presumably standardised) in a number of major state-run arms factories (*fabricae*) documented in the *Notitia*. It is unknown when these were first established, but they certainly existed by the time of Diocletian.^[245] In the 2nd century, there is evidence of *fabricae* inside legionary bases and even in the much smaller auxiliary forts, staffed by the soldiers themselves.^[246] But there is no evidence, literary or archaeological, of *fabricae* outside military bases and staffed by civilians during the Principate (although their existence cannot be excluded, as no archaeological evidence has been found for the late *fabricae* either). Late *fabricae* were located in border provinces and dioceses.^[247] Some were general manufacturers producing both armour and weapons (*fabrica scutaria et armorum*) or just one of the two. Others were specialised in one or more of the following: *fabrica spatharia* (sword manufacture), *lanciaria* (spears), *arcuaria* (bows), *sagittaria* (arrows), *loricaria* (body armour), *clibanaria* (cataphract armour), and *ballistaria* (catapults).^[248]

Fortifications

Compared to the 1st and 2nd centuries, the 3rd and 4th centuries saw much greater fortification activity, with many new forts built.^[128] Later Roman fortifications, both new and upgraded old ones, contained much stronger defensive features than their earlier counterparts. In addition, the late 3rd/4th centuries saw the fortification of many towns and cities including the City of Rome itself and its eastern sister, Constantinople.^[249]

According to Luttwak, Roman forts of the 1st/2nd centuries, whether *castra legionaria* (inaccurately translated as legionary "fortresses") or auxiliary forts, were clearly residential bases that were not designed to withstand assault. The typical rectangular "playing-card" shape, the long, thin and low walls and shallow ditch and the unfortified gates were not defensible features and their purpose was delimitation and keeping out individual intruders.^[250] This view is too extreme, as all the evidence suggests that such forts, even the more rudimentary



The Walls of Theodosius II at Constantinople, built 408–413, to increase the area of land protected by the original Constantinian walls.

Note the massive crenellated towers and surviving sections of wall. The walls actually consisted of a triple curtain, each one overlooking the other. They proved impregnable to even the largest armies until the introduction of explosive artillery in the later Middle Ages

earlier type based on the design of marching-camps (ditch, earth rampart and wooden palisade), afforded a significant level of protection. The latter is exemplified by the siege of the legionary camp at *Castra Vetera* (Xanten) during the revolt of the Batavi in 69–70 AD. 5,000 legionaries succeeded in holding out for several months against vastly superior numbers of rebel Batavi and their allies under the renegade auxiliary officer Civilis, despite the latter disposing of ca. 8,000 Roman-trained and equipped auxiliary troops and deploying Roman-style siege engines. (The Romans were eventually forced to surrender the fort by starvation).^[251]

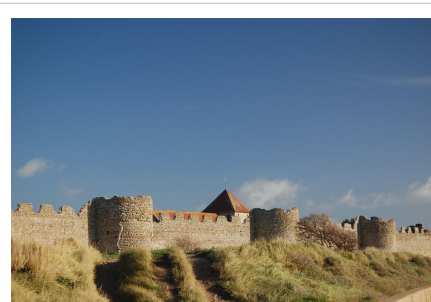
Nevertheless, later forts were undoubtedly built to much higher defensive specifications than their 2nd century predecessors, including the following features:

1. Deeper (average: 3 m) and much wider (av. 10 m) perimeter ditches (*fossae*). These would have flat floors rather than the traditional V-shape.^[128] Such ditches would make it difficult to bring siege equipment (ladders, rams, and other engines) to the walls. It would also concentrate attackers in an enclosed area where they would be exposed to missile fire from the walls.^[252]
2. Higher (av. 9 m) and thicker (av. 3 m) walls. Walls were made of stone or stone facing with rubble core. The greater thickness would protect the wall from enemy mining. The height of the walls would force attackers to use scaling-ladders. The parapet of the rampart would have crenellations to provide protection from missiles for defenders.^[253]
3. Higher (av. 17.5 m) and projecting corner and interval towers. These would enable enfilading fire on attackers. Towers were normally round or half-round, and only rarely square as the latter were less defensible. Towers would be normally be spaced at 30 m (**unknown operator: u'strong'** ft) intervals on circuit walls.^[254]
4. Gate towers, one on each side of the gate and projecting out from the gate to allow defenders to shoot into the area in front of the entrance. The gates themselves were normally wooden with metal covering plates to prevent destruction by fire. Some gates had portcullises. Postern gates were built into towers or near them to allow sorties.^[255]

More numerous than new-build forts were old forts upgraded to higher defensive specifications. Thus the two parallel ditches common around earlier forts could be joined by excavating the ground between them. Projecting towers were added. Gates were either rebuilt with projecting towers or sealed off by constructing a large rectangular bastion. The walls were strengthened by doubling the old thickness. Upgraded forts were generally much larger than new-build. New forts were rarely over one hectare in size and were normally placed to fill gaps between old forts and towns.^[256] However, not all of the old forts that continued to be used in the 4th century were upgraded e.g. the forts on Hadrian's Wall and some other forts in Britannia were not significantly modified.^[257]

The main features of late Roman fortification clearly presage those of medieval castles. But the defensibility of late Roman forts must not be exaggerated. Late Roman forts were not always located on defensible sites, such as hilltops and they were not designed as independent logistic facilities where the garrison could survive for years on internal supplies (water in cisterns or from wells and stored food). They remained bases for troops that would sally out and engage the enemy in the field.^[258]

Nevertheless, the benefits of more defensible forts are evident: they could act as temporary refuges for overwhelmed local troops during barbarian incursions, while they waited for reinforcements. The forts were difficult for the barbarians to take by assault, as they generally lacked the necessary equipment. The forts could store sufficient supplies to enable the defenders to hold out for a few weeks, and to supply relieving troops. They could also act as bases from which defenders could make sorties against isolated groups of barbarians and to cooperate with relieving



An example of late Roman fortification. Note the protruding towers to allow enfilading fire. The original height of both walls and towers was clearly greater than today, and the crenellations are not the original ones, but crudely cut from the curtain wall itself in the medieval period. The church visible inside the walls was built in the 12th century by the Normans. Portchester Castle, England. 3rd century

forces.^[259]

The question arises as to why the 4th century army needed forts with enhanced defensive features whereas the 2nd century army apparently did not. Luttwak argues that defensible forts were an integral feature of a 4th century defence-in-depth "grand strategy", while in the 2nd century "preclusive defence" rendered such forts unnecessary. But the existence of such a "strategy" is strongly disputed by several scholars, as many elements of the late Roman army's posture were consistent with continued forward defence.^[260] An alternative explanation is that preclusive defence was still in effect but was not working as well as previously and barbarian raids were penetrating the empire more frequently.(see Strategy, below)

Strategy and tactics

Strategy

Edward Luttwak's *Grand Strategy of the Roman Empire* (1976) re-launched the thesis of Theodor Mommsen that in the 3rd and early 4th centuries, the empire's defence strategy mutated from "forward defence" (or "preclusive defence") in the Principate to "defence-in-depth" in the 4th century. According to Luttwak, the Principate army had relied on neutralising imminent barbarian incursions before they reached the imperial borders. This was achieved by stationing units (both legions and auxiliary regiments) right on the border and establishing and garrisoning strategic salients beyond the borders. The response to any threat would thus be a pincer movement into barbarian territory: large infantry and cavalry forces from the border bases would immediately cross the border to intercept the coalescing enemy army.^[261]

According to Luttwak, the forward defence system was always vulnerable to unusually large barbarian concentrations of forces, as the Roman army was too thinly spread along the enormous borders to deal with such threats. In addition, the lack of any reserves to the rear of the border entailed that a barbarian force that successfully penetrated the perimeter defences would have unchallenged ability to rampage deep into the empire before Roman reinforcements from other border garrisons could arrive to intercept them.^[262]

The essential feature of defence-in-depth, according to Luttwak, was an acceptance that the Roman frontier provinces themselves would become the main combat zone in operations against barbarian threats, rather than the barbarian lands across the border. Under this strategy, border forces would not attempt to repel a large incursion. Instead, they would retreat into fortified strongholds and wait for mobile forces (*comitatenses*) to arrive and intercept the invaders. Border forces would be substantially weaker than under forward defence, but their reduction in numbers (and quality) would be compensated by the establishment of much stronger fortifications to protect themselves.^[263]

But the validity of Luttwak's thesis has been strongly disputed by a number of scholars, especially in a powerful critique by B. Isaac, the author of a leading study of the Roman army in the East (1992).^{[264][265][266]} Isaac claims that the empire did not have the intelligence capacity or centralised military planning to sustain a grand strategy e.g. there was no equivalent to a modern army's general staff.^[267] In any case, claims Isaac, the empire was not interested in "defence" at all: it was fundamentally aggressive both in ideology and military posture, up to and including the 4th century.^[268]

Furthermore, there is a lack of substantial archaeological or literary evidence to support the defence-in-depth theory.^[269] J.C. Mann points out that there is no evidence, either in the *Notitia Dignitatum* or in the archaeological record, that units along the Rhine or Danube were stationed in the border hinterlands.^[270] On the contrary, virtually all forts identified as built or occupied in the 4th century on the Danube lay on, very near or even beyond the river, strikingly similar to the 2nd-century distribution.^{[271][272]}

Another supposed element of "defence-in-depth" were the *comitatus praesentales* (imperial escort armies) stationed in the interior of the empire. But Luttwak himself admits that these were too distant from the frontier to be of much value in intercepting barbarian incursions.^[273] Their arrival in theatre could take weeks, if not months.^[274] Although

they are often described as "mobile field armies", in this context "immobile" would be a more accurate description. A traditional view is that the escort armies' role was precisely as a strategic reserve of last resort that could intercept really large barbarian invasions that succeeded in penetrating deep into the empire (such as the invasions of the late 3rd century). But this theory conflicts with the fact the large *comitatus* was not established before 312, by which time there had not been a successful barbarian invasion for ca. 40 years. Hence the mainstream modern view that the *praesentales* armies central role was as insurance against usurpers.^[24]

Luttwak terminates his analysis at the end of Constantine's reign, before the establishment of the regional *comitatus*. Unlike the imperial escort armies, these were close enough to the theatre of operations to succour the border troops. But their stationing may have differed little from the location of legions in the 2nd century, even though they apparently wintered inside cities, rather than in purpose-built legionary bases.^[275] For example, the two *comitatus* of Illyricum (East and West) are documented as wintering in Sirmium, which was the site of a major legionary base in the Principate.^[276]

Furthermore, the late empire maintained a central feature of Principate forward defence: a system of treaties of mutual assistance with tribes living on the imperial frontiers. The Romans would promise to defend the ally from attack by its neighbours. In return, the ally would promise to refrain from raiding imperial territory, and prevent neighbouring tribes from doing the same. Although the allies would officially be denoted *tributarii* (i.e. subject to paying tribute to Rome, in cash or in kind), in practice the loyalty of the ally was often secured by gifts or regular subsidies from Rome. This practice was applied on all the frontiers.^[156] The Romans continued to assist the client tribes to defend themselves in the 4th century. For example, Constantine I's army constructed two massive lines of defensive earthworks, 100–250 km beyond the Danube, totalling ca. 1500 km (**unknown operator: u'strong'** mi) in length, the Devil's Dykes in Hungary/Romania and the Brazda lui Novac de Nord in Romania. Garrisoned by a mix of Roman and native troops, their purpose was to protect Dacian and Sarmatian tributary tribes of the Tisza and Wallachian plains against Gothic incursions. This created a Transdanubian buffer zone, extending from *Aquincum* (Budapest) all the way to the Danube delta, obviously contradicting the proposition that the empire's Danubian border provinces were themselves envisaged as buffer zones.^[277] (This was especially unlikely in the case of these regions, as the Illyrian emperors and officer class that dominated the late army would hardly relish seeing their native provinces reduced to combat zones).

Late Roman emperors continued major and frequent offensive operations beyond the imperial borders throughout the 4th century. These were strikingly similar to the pincer movements described by Luttwak as being characteristic of forward defence in the early Principate. For example, Valentinian I's campaign against the Quadi in 375.^[278] Julian in 356–60 and Valentinian I in 368–74 carried out several operations across the Rhine and Danube designed to force the submission of local tribes and their acceptance of *tributarii* status.^[279]

The late army's "defence" posture thus contains many elements that are similar to the Principate army's, raising the question of whether defence-in-depth was ever in reality contemplated (or implemented) as a strategy. But the debate about defence-in-depth is still very much alive in academic circles.

Role of cavalry

A traditional thesis is that cavalry assumed a much greater importance in the 4th-century army than it enjoyed in the 2nd century. According to this view, cavalry increased significantly as a proportion of the total forces and took over the leading tactical role from the infantry. It also enjoyed much higher status than in the 2nd century. At the same time, the infantry declined in efficiency and value in operations, leaving the cavalry as the effective arm. In fact, there is no good evidence to support this view, and plenty of evidence against it.^[151]

As regards numbers, the mid-2nd century army contained ca. 80,000 cavalry out of ca. 385,000 total effectives i.e. cavalry constituted ca. 21% of the total forces.^[5] For the late army, about one third of the army units in the *Notitia* are cavalry, but in numbers cavalry were a smaller proportion of the total because cavalry units were on average smaller than infantry units. For example, in the *comitatus*, cavalry *vexillationes* were probably half the size of infantry *legiones*. Overall, the available evidence suggests that the proportion of cavalry was much the same as in the 2nd century. Examples: in 478, a *comitatus* of 38,000 men contained 8,000 cavalry (21%). In 357, the *comitatus* of Gaul, 13–15,000 strong, contained an estimated 3,000 cavalry (20–23%).^[280]

As a consequence, most battles in the 4th century were, as in previous centuries, primarily infantry encounters, with cavalry playing a supporting role. The main qualification is that on the Eastern frontier, cavalry played a more prominent role, due to the Persian reliance on cavalry as their main arm. This obliged the Romans to strengthen their own cavalry element, in particular by increasing the number of *cataphracti*.^[17]

The supposedly higher status of cavalry in the 4th century is also open to doubt. This view is largely based on underestimating the importance of cavalry in the 2nd century.^[151] Cavalry always had higher status than infantry in the Principate: in the time of Domitian (r. 81–96), auxiliary cavalry was paid 20–40% more than auxiliary infantry.^[281]

The view of some modern scholars that the 4th century cavalry was a more efficient service than the infantry was certainly not shared by Ammianus and his contemporaries. Ammianus describes three major battles which were actually or nearly lost due to the incompetence or cowardice of the Roman cavalry.^[282] (1) The Battle of Strasbourg (357), where the cavalry, including cataphracts, were routed by their German counterparts at an early stage, leaving the Roman infantry right wing dangerously exposed. After fleeing behind the infantry lines, it took the personal intervention of Julian to rally them and persuade them to return to the fight. (The cataphracts were later ordered to wear female clothes by Julian as punishment).^[283] (2) During his Persian campaign (363), Julian was obliged to sanction two cavalry units for fleeing when caught by surprise attacks (one unit was decimated, the other dismounted). Later, the *Tertiaci* cavalry regiment was ordered to march with the camp followers for deserting the field just as the infantry was on the point of breaking the Persian line. (3) At the Battle of Adrianople (378), the Roman cavalry was largely responsible for the catastrophic defeat. *Scholae* units started the battle by an unauthorised attack on the enemy wagon circle, at a moment when their emperor Valens was still trying to negotiate a truce with the Goths. The attack failed, and when the Gothic cavalry appeared, the Roman cavalry fled, leaving the Roman infantry left wing exposed. The Gothic cavalry then routed the Roman left wing, and the battle was as good as lost.^[284]

In contrast, the excellent performance of the infantry, both *comitatenses* and *limitanei*, is a recurrent feature of Ammianus' history. At the Persian siege of Amida, Ammianus' eye-witness account describes the city's defence by *limitanei* units as skilful and tenacious, if ultimately unsuccessful.^[285] At Strasbourg (357), the infantry showed remarkable skill, discipline and resilience throughout, saving the day at two critical moments.(see Battle of



Late Roman cavalry officers (bottom right) in a hunting scene. In combat, most cavalymen would, like infantry, wear a mail shirt and helmet. Mosaic from Piazza Armerina, Sicily. 4th century

Strasbourg for a detailed account).^[286] Even at the disaster of Adrianople, the Roman infantry fought on, despite being abandoned by their cavalry and surrounded on three sides by overwhelmingly superior numbers of Goths.^[287]

Tactics

Just as the armour and weapons of the late army were fundamentally similar to those of earlier eras, so the army's tactics were based on traditional principles. The key elements of systematic scouting, marching formation, battle array, fortified camping, and siegecraft were all followed intact in the late period.^[288] This section examines aspects of late tactics that differed significantly from Principate tactics.

One striking difference was that late army doctrine (and practice) aimed at avoiding open battle with the enemy if possible, unlike the early Principate doctrine of seeking to bring the enemy to battle as often and as quickly as possible.^{[289][290]} The main motivation was likely not a reduced ability to win such encounters. The late army continued to win the great majority of its battles with barbarians.^[291] Rather, the primary concern seemed to be the need to minimise casualties.^[289] Pitched battles generally resulted in heavy losses of high-grade *comitatenses* troops, which could not be easily replaced. This in turn supports the hypothesis that the late army had greater difficulty than the Principate in finding sufficient recruits, and especially high-quality recruits. The late army preferred to attack the enemy by stealth or stratagem: ambushes, surprise attacks, harassment and manoeuvres to corner the enemy in zones where they could not access supplies and from which they could not escape (e.g. by blocking mountain passes or river crossings).^[292]

Where battle could not be avoided, the late army broadly followed traditional practice as regards array. Heavy infantry would be drawn up in a main line, normally straight and several ranks deep. Mounted archers were stationed, together with light-armed slingers, in front of the main infantry line. Cavalry would be posted on the wings (light cavalry on the outside). Foot archers would form the rear rank(s) of the main infantry line.^[293] There would be a reserve infantry and cavalry line of variable size to the rear of the main line, in order to deal with breaches in the main line and to exploit opportunities. At a distance of a mile or so to the rear of the army, its fortified camp of the previous night would contain its assistants and baggage, guarded by a small garrison. The camp could act as a refuge if the army was put to flight. Roman armies in the field never camped overnight without constructing defences. A ditch would be dug around the perimeter of the camp, and the spoil used to erect a rampart, which would then be topped with a palisade of sharpened wooden stakes arranged cross-hatched to form an impenetrable screen. Such defences, systematically patrolled, effectively precluded surprise attacks and enabled the troops to get a good night's sleep.^[294]

Where the late army appears to have evolved to some extent is in battle tactics. The Principate army had relied on a barrage of heavy javelins (*pila*) followed by a shock infantry charge, which was often sufficient to shatter, or at least disorganise, the barbarian line. After that, legionaries were trained to engage in aggressive *mano-a-mano* combat, striking the enemy in the face with the boss of their heavy shields (*scuta*) and stabbing them viciously with short swords (*gladii*). In close combat, the Romans had the crucial advantage of superior armour, and such tactics very often resulted in the rout of the less well-equipped and trained barbarian foe.^[151] The mounted archers and slingers in front of the main infantry line would loose their missiles on the enemy before the infantry lines engaged and would then hastily retreat to the rear of their own infantry line, whence, in conjunction with the foot archers already there, they would loose a continuous rain of missiles on the enemy foot by shooting over the heads of their own infantry.^[295] The cavalry's task on each wing was to scatter the enemy cavalry facing them and then, if possible, to encircle the main body of enemy infantry and attack them from the flanks and rear.

In the late army, while the role of archers and cavalry remained similar, the infantry's tactics were less aggressive, relying less on the charge and often waiting for the enemy to charge.^[234] During the battle, the Roman line would exert steady pressure in close formation. The thrusting-spear (2–2.5 m long) had replaced the *gladius* (just 0.5 m () long) as the primary mêlée weapon.^[296] The extended reach of the thrusting-spear, combined with the adoption of oval or round shields, permitted a battle array where shields were interlocked to form a "shield wall". (Spears would

protrude through the 'V' shaped gaps formed between overlapping shields).^{[297][298]} The late army also relied more heavily on missiles, replacing the single volley of *pila* with a more prolonged discharge of javelins and darts.^[234]

This kind of combat was consistent with the aim of minimising casualties and its efficacy is illustrated by the Battle of Strasbourg. The battle was primarily a struggle of attrition where steady pressure on the barbarians resulted in their eventual rout. Despite a long and hard-fought struggle, Roman casualties were negligible.^[299]

The "barbarisation" theory

The **barbarisation theory**, ultimately derived from Edward Gibbon's 18th-century *magnum opus*, *The Decline and Fall of the Roman Empire*, contains two propositions. (1) That the late army recruited much greater numbers of barbarian-born troops than the Principate army; and (2) that the greater number of barbarian recruits resulted in a major decline of the army's effectiveness and was a leading factor in the collapse of the Western Roman empire. As discussed above, proposition (1) is probably correct, although it should be borne in mind that probably about three-quarters of the late army's recruits remained Roman-born. This section considers proposition (2).

According to this view, the barbarian officers and men recruited by the late army, coming from tribes that were traditional enemies of Rome, had no real loyalty to Rome and often betrayed her interests, colluding with invading barbarian tribes, especially if those tribes were their own. At the same time, the spread of barbarian customs and culture led to a decline in traditional military discipline, and internal army disunity due to friction between Romans and barbarians. Ultimately, the army degenerated into just a collection of foreign mercenary bands that were incapable of defending the empire effectively.^[168]

According to the historian A.D. Lee, there is little evidence to support this view and compelling reasons to reject it. Firstly, the late army clearly was not, and did not become, ineffective. The regular army in the West remained a formidable force until the political disintegration of the West in mid 5th century and continued to win most of its major encounters with barbarian forces e.g. the defeat of Radagaisus in 405.^[300] In any case, the Eastern empire did not collapse, even though its army probably contained at least the same proportion of barbarians as the West, if not greater. An analysis of the ethnicity of Roman army officers named in the sources shows that in the period 350–99, 23% were probably barbarian-born. The same figure for period 449–76 officers, virtually all Easterners (as the Western army had largely dissolved) was 31%.^[301] In the *Notitia*, 55 Eastern regiments carry barbarian names, compared with 25 in the Western army.^[302]

There is a tendency by some modern scholars to ascribe to ancient barbarians a degree of ethnic solidarity that did not exist, according to A.H.M. Jones. Germanic tribes were constantly fighting each other and even within such tribal confederations as the Franks or Alamanni there were bitter feuds between the constituent tribes and clans. Indeed, a primary reason why many tribal sub-groups surrendered to the Roman authorities (*dediticii*) and sought to settle in the empire as *laeti* was in order to escape pressure from their



Drawing of Flavius Stilicho, the barbarian-born general who was *magister utriusque militiae* (commander-in-chief) of West Roman forces 395–408. The general is depicted in the standard attire of a common foot soldier of the time when not in combat, wearing a *chlamys* (military cloak) over his tunic and carrying a heavy thrusting-spear and oval shield (in combat most late soldiers wore mail shirts and helmets). He was made a scapegoat for the barbarian invasions of 405–6, although in reality his military skill may have saved the West from early collapse. Derived (1848) from an ivory diptych at Monza, Italy

neighbours.^[31] The few known conflicts of loyalty only arose when the Roman army was campaigning against a barbarian-born soldier's own specific clan.^[303] Ammianus himself never characterises barbarian-born troops as unreliable.^[304] On the contrary, his evidence is that barbarian soldiers were as loyal, and fought as hard, as Roman ones.^[305]

An indication of the army's high esteem for barbarian-born troops is that they appear to have been preferentially recruited to the elite units of the late imperial era's armies. In the *auxilia palatina* infantry regiments, the proportion of barbarians in the ranks appears to have numbered anywhere between a third and a half of effectives (compared to a quarter in the army as a whole).^[306] From the late 3rd century onwards, barbarian recruitment became crucial to the army's continued existence, by providing a much-needed source of first-rate recruits.^{[307][308][309][310]}

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External links

- Roman army reenactors (<http://www.fectio.org.uk/fectio.htm#Late>)
- Comitatus (<http://www.comitatus.net/Home.htm>) Historical reenactment and Living history group portraying the Late Roman army in northern England
- Britannia (<http://www.durolitum.co.uk>) Historical reenactment/Living history The largest (and oldest) Late Roman group in the UK, with members located around the country.

Byzantine army

Byzantine army	
Participant in wars of the Byzantine Empire	
Active	330–1453 AD
Leaders	Byzantine Emperor (Commander-in-chief)
Headquarters	Constantinople
Area of operations	Balkans, Asia Minor, Middle East, Italy, North Africa, Spania, Caucasus, Crimea
Part of	Byzantine Empire
Originated as	Late Roman army
Allies	Bulgars, Crusader states, Anatolian beyliks, Khazars, Avars, Rus', Magyars
Opponents	Goths, Huns, Sassanid Persia, Vandals, Ostrogoths, Avars, Slavs, Muslim Caliphate, Bulgaria, Rus', Normans, Crusader states, Seljuks, Anatolian beyliks, Ottomans and others

The **Byzantine army** was the primary military body of the Byzantine armed forces, serving alongside the Byzantine navy. A direct descendant of the Roman army, the Byzantine army maintained a similar level of discipline, strategic prowess and organization. It was among the most effective armies of western Eurasia for much of the Middle Ages. The early Byzantine army received a mixed diet of victory and defeat – consequently the cavalry arm became more prominent as the legion system disappeared in the early 7th century. Later reforms reflected some Germanic and Asian influences^[1] – with every encounter against a ferocious opponent the Byzantines would find a new source of excellent mercenaries with Huns, Cumans, Alans and (following the Battle of Manzikert) Turks meeting the Empire's appetite for light cavalry mercenaries. Since much of the Byzantine military focused on the strategy and skill of generals utilizing militia troops, heavy infantry were recruited from Frankish and later Varangian mercenaries.

From the seventh to the 12th centuries, the Byzantine army was among the most powerful and effective military forces – neither Middle Ages Europe nor (following its early successes) the fracturing Caliphate could match the strategies and the efficiency of the Byzantine army. Restricted to a largely defensive role in the 7th to mid-9th centuries, the Byzantines developed the theme-system to counter the more powerful Caliphate. From the mid-9th century, however, they gradually went on the offensive, culminating in the great conquests of the 10th century under a series of soldier-emperors such as Nikephoros II Phokas, John Tzimiskes and Basil II. The army they led was less reliant on the militia of the themes; it was by now a largely professional force, with a strong and well-drilled infantry at its core and augmented by a revived heavy cavalry arm. With one of the most powerful economies in the world at the time, the Empire had the resources to put to the field a powerful host when needed, in order to reclaim its long-lost territories.

After the collapse of the theme-system in the 11th century, the Byzantines grew increasingly reliant on professional Tagmata troops, including ever-increasing numbers of foreign mercenaries. The Komnenian emperors made great efforts to re-establish a native army, instituting the *pronoia* system of land grants in exchange for military service. Nevertheless, mercenaries remained a staple feature of late Byzantine armies since the loss of Asia Minor reduced the Empire's recruiting-ground, while the abuse of the *pronoia* grants led to a progressive feudalism in the Empire. The Komnenian successes were undone by the subsequent Angeloi dynasty, leading to the dissolution of the Empire at the hands of the Fourth Crusade in 1204.

The Emperors of Nicaea managed to form a small but effective force using the same structure of light and heavily armed troops, both natives and foreigners. It proved effective in defending what remained of Byzantine Anatolia and

reclaiming much of the Balkans and even Constantinople itself in 1261. Another period of neglect of the military followed in the reign of Andronikos II Palaiologos, which allowed Anatolia to fall prey to an emerging power, the Ottoman emirate. Successive civil wars in the 14th century further sapped the Empire's strength and destroyed any remaining chance of recovery, while the weakening of central authority and the devolution of power to provincial leaders meant that the Byzantine army was now composed of a collection of militias, personal entourages and mercenary detachments.^[2]

History

Just as what we today label the Byzantine Empire was in reality and to contemporaries a continuation of the Roman Empire, so the Byzantine army was an outgrowth of the Late Roman structure, which largely survived until the mid-7th century. The official language of the army for centuries continued to be Latin but this would eventually give way to Greek as in the rest of the Empire, though Latin military terminology would still be used throughout its history.

In the period after the Muslim conquests, which saw the loss of Syria and Egypt, the remainders of the provincial armies were withdrawn and settled in Asia Minor, initiating the thematic system. Despite this unprecedented disaster, the internal structures of the army remained much the same, and there is a remarkable continuity in tactics and doctrine between the 6th and 11th centuries. The Battle of Manzikert in 1071 and the subsequent Seljuk invasions, together with the arrival of the Crusades and the incursions of the Normans, would severely weaken the Byzantine state and its military, which increasingly had to rely on foreign mercenaries.

The army under Diocletian and Constantine

The Eastern Empire dates from the creation of the Tetrarchy ("Quadrumvirate") by the Emperor Diocletian in 293. His plans for succession did not outlive his lifetime, but his reorganization of the army did by centuries. Rather than maintain the traditional infantry-heavy legions, Diocletian reformed it into *limitanei* ("border") and *comitatenses* ("field") units. There was an expansion of the importance of the cavalry, though the infantry still remained the major component of the Roman armies, in contrast to common belief. For example, in 478, an Eastern field army consisted of 8,000 cavalry and 30,000 infantry and it can be calculated that in 357 Emperor Julian had 10,000 infantry and 3,000 cavalry at Strasbourg. But the importance of cavalry for the commanding officers, though not the numbers, did increase, and by the time of Justinian, the numbers had increased, too.

The *limitanei* and *ripenses* were to occupy the *limes*, the Roman border fortifications. The field units, by contrast, were to stay well behind the border and move quickly where they were needed, whether for offensive or defensive roles, as well as forming an army against usurpers. The field units were held to high standards and took precedence over Limitanei in pay and provisions.

Cavalry formed about one-third of the units, but as a result of smaller units, about one-quarter of the Roman armies consisted of cavalry. About half the cavalry consisted of heavy cavalry (including the *stablesiani*). They were armed with spear or lance and sword and armored in mail. Some had bows, but they were meant for supporting the charge instead of independent skirmishing. In the field armies there was a component of some 15% of cataphractarii or clibanarii, heavily armoured cavalry who used shock tactics. The light cavalry (including the *scutarii* and *promoti*) featured high amongst the limitanei, being very useful troops on patrol. They included horse archers (*Equites Sagittarii*). The infantry of the *comitatenses* was organized in regiments (variously named *legiones*, *auxilia* or just



Emperor Constantine I.

numeri) of about 500–1,200 men. They were still the heavy infantry of old, with a spear or sword, shield, body armour and a helmet. But now each regiment was supported by a detachment of archers and some skirmishers. If needed, the infantry could take off (some of) their armour to act in a more flexible way as Modares did (according to Zosimus) during the Gothic War of the 370s. The regiments were commanded by a *tribunus* ("tribune") and brigaded in pairs (cavalry units did, too) under a *comes*. These brigades probably were tactical and strategic units only, as no traces survive of brigade staff corps.

On the other hand, little is known of the *limitanei*. The old legions, cohorts and cavalry *alae* survived there, and newer units were created (the new legions, or *auxilia* and *vexillationes*, amongst the cavalry. The *limitanei* infantry may have been lighter-equipped than the *comitatenses* infantry, but there is no evidence whatsoever. They were paid less than the field troops and recruited locally. Consequently, they were of inferior quality. However, they were in the line of fire. They countered most incursions and raids. Thus, it can be assumed they did have superior field experience (except in periods of long campaigning for the *comitatenses*), though that experience did not extend to large battles and sieges.

The *Scholae Palatinae* units, which were more properly known as the *Schola Protectores Domestici* and the "Protective Association of the Royal Escort" (also called the *Obsequium*), were the personal guard of the Emperor, and were created to replace the Praetorian Guard disbanded by Constantine I.

The legions in the third and fourth century were not the legions of the Republic or earlier Roman empire, that they consisted largely or solely of equites troops, and that they tended to be far short of the Augustinian legion component of 5,000 men.

The army of Justinian I and his successors

The following is drawn mainly from J.B. Bury's *History of the Later Roman Empire: From the Death of Theodosius I to the Death of Justinian I* (London, 1923; Dover Publications reprint, 1958).

The army of Justinian I was the result of fifth-century reorganizations to meet growing threats to the empire, the most serious from the expanding Persian empire. Gone were the familiar legions, cohorts and *alae* of old Rome, and in their place were small infantry battalions or horse regiments called a *tagma* or *numerus*. A *tagma* had between 300 and 400 men and was commanded by a tribune. Two or more *tagmata* formed a brigade, or *moira*; two or more brigades a division, or *meros*.

There were six classifications of troops.

1. The guard troops stationed in the capital.
2. The *comitatenses* of the old Roman field armies. In Justinian's day these were more commonly called *stratiotai*. Regular soldiers of the Roman army, the *stratiotai* were chiefly recruited from subjects of the empire in the highlands of Thrace, Illyricum and Isauria.
3. The *limitanei*. The least changed element of the Roman army, *limitanei* still performed their traditional duties of guarding frontiers and garrisoning border posts.
4. The *foederati*. They were a relatively new element in the army, recruited from the fifth century onwards from barbarian volunteers. They were formed into cavalry units under Roman officers. A ban on enlistments by Roman subjects was lifted in the sixth century, and their composition became mixed.
5. The Allies. These were bands of barbarians, Huns, Herules, Goths or others who were bound by treaty to provide the empire with military units commanded by their own chiefs, in return for land or yearly subsidy.
6. The *bucellarii*. The private armed retainers of generals, Praetorian Prefects, officers of lesser rank and the rich, the *bucellarii* were often a significant portion of a field army's cavalry force. The size of a retinue of *bucellarii* depended on the wealth of the employer. Their rank and file were called *hypaspistai*, or shield-bearers, and their officers, *doryphoroi* or spear-bearers. *Doryphoroi* took solemn oaths of fidelity to their patron and of loyalty to the emperor. One of most noted generals of the period, Belisarius, had been a *doryphoros* in Justinian's retinue before his becoming emperor. The *bucellarii* were usually mounted troops, mostly Huns, Goths and mountaineers

of Thrace or Asia Minor.

Modern scholars estimate the total strength of the imperial army under Justinian to be between 300,000 and 350,000 soldiers.^[3] Field armies generally had 15,000 to 25,000 soldiers and were formed mainly of *comitatenses* and *foederati*, reinforced by the commanders' *retinues* and barbarian allies. The expeditionary force of Belisarius during his reconquest of Carthage from the Vandals in 533 is illustrative.

This army had 10,000 *comitatenses* and *foederati* infantry, with 3,000 similarly composed cavalry. There were 600 Huns and 400 Herules, all mounted archers, and 1,400 or 1,500 mounted *bucellarii* of Belisarius' *retinue*. The small force of less than 16,000 men voyaged from the Bosphorus to North Africa on 500 ships protected by 92 *dromons*, or war-ships.

Tactics, organization and equipment had been largely modified to deal with the Persians. The Romans adopted elaborate defensive armor from Persia, coats of mail, cuirasses, casques and greaves of steel for *tagma* of elite heavy cavalrymen called *cataphractii*, who were armed with bow and arrows as well as sword and lance.

Large numbers of light infantry were equipped with the bow, to support the heavy infantry, called *scutarii*. These wore a steel helmet and a coat of mail, and carried a spear, axe and dagger. They generally held the center of a Roman line of battle. Infantry armed with javelins were used for operations in mountain regions.

Notable military events during the reign of Justinian included the battle of Daras in 530, when Belisarius, with a force of 25,000, defeated the Persian emperor's army of 40,000. In addition to his reconquest of Carthage, noted above, Belisarius also recaptured Sicily, Naples, Rome and the rest of Italy from the Goths in a war lasting from 536 to 540. Another famous commander of the time was the imperial eunuch Narses, who defeated a Gothic army at *Busta Gallorum* on the eastern coast of Italy in 552.

The armies of the middle Byzantine period, 7th–11th centuries

The *Themata*

The *themata* (Gr. θέματα) were administrative divisions of the empire in which a general (Gr. στρατηγός, *strategos*) exercised both civilian and military jurisdiction and a Judge (Κριτής του Θέματος, *Krites tou thematos*) held the judicial power. The name is peculiar; Treadgold's closest guess is that *thema* was being used to denote "emplacements". Modern historians agree that the designations of the first themes came from the field armies that were stationed in Asia Minor.

The five original *themata* were all in Asia Minor and originated from the earlier mobile field armies. They were:

- the **Armeniac Theme** (Θέμα Ἀρμενιάκων, *Thema Armeniakōn*), first mentioned in 667, was the successor of the Army of Armenia. It occupied the old areas of the Pontus, Armenia Minor and northern Cappadocia, with its capital at Amasea
- the **Anatolic Theme** (Θέμα Ανατολικῶν, *Thema Anatolikōn*), first mentioned in 669, was the successor of the Army of the East (Ἀνατολή). It covered central Asia Minor, and its capital was Amorium.
- the **Opsician Theme** (Θέμα Ὀψικίου, *Thema Opsikiou*), first mentioned in 680, was where the imperial *retinue* (in Latin *Obsequium*), was established. It covered northwestern Asia Minor (Bithynia, Paphlagonia and parts of Galatia), and was based at Nicaea. Its commander bore the title of *komēs* ("count")
- the **Thracian Theme** (Θέμα Θρακησίων, *Thema Thrakēsion*), first mentioned in 680, was the successor of the Army of Thrace. It covered the central western coast of Asia Minor (Ionia, Lydia and Caria), with capital at Ephesos.
- the corps of the **Carabisiani** (Καραβησιάνοι, *Karabēsianoī*), first mentioned in 680, probably formed from the remnants of the Army of the Illyricum or the old *quaestura exercitus*. It occupied the southern coast of Asia Minor and the Aegean Islands, with its capital at Attaleia. It was a naval corps (κάραβις means "ship"), and its commander bore the title of *droungarios*. It was replaced with the Cibyrrhaeot Theme in the early 8th century.

Within each theme, eligible men were given grants of land to support their families and to equip themselves. Following revolts strengthened by the large size of these divisions, Leo III the Isaurian, Theophilus, and Leo VI the Wise all responded by breaking the themes up into smaller areas and dividing control over the armies within each theme into various *tourmai*. The large early themes were progressively split up in the 8th–9th centuries to reduce their governors' power, while in the 10th century, new and much smaller themes, called "Armenian themes" because many were settled by Armenians, were created in the East in conquered territories. While in ca. 842 the *Taktikon Uspensky* lists 18 *strategoi* of themes, the *De Thematribus* of ca. 940 lists 28, and the *Escorial Taktikon*, written ca. 971–975, lists almost 90 *strategoi* of themes and other military commands.^[4]

Sicily had been completely lost to the expanding Emirate of Sicily at the beginning of Constantine VII's reign in 905 and Cyprus was a condominium jointly administered with the Abbasid Caliphate until its reconquest by Nikephoros II Phokas in 965. Constantinople itself was under an Eparch and protected by the numerous *tagmata* and police forces.

Under the direction of the thematic *strategoi*, *tourmarchai* commanded from two up to four divisions of soldiers and territory, called *tourmai*. Under them, the *droungarioi* headed subdivisions called *droungoi*, each with a thousand soldiers. On the field, these units would be further divided into *banda* with a nominal strength of 300 men, although at times reduced to little more than 50. Again, the fear of empowering effective revolts was largely behind these subdivisions.

The following table illustrates the thematic structure as found in the Thracesian Theme, circa 902–936.

Name	No. of personnel	No. of subordinate units	Officer in command
Thema	9 600	4 Tourmai	Strategos
Tourma	2 400	6 Droungoi	Tourmarches
Droungos	400	2 Banda	Droungarios
Bandon	200	2 Kentarchiai	Komes
Kentarchia	100	10 Kontoubernia	Kentarches/Hekatontarches
	50	5 Kontoubernia	Pentekontarches
Kontoubernion	10	1 "Vanguard" + 1 "Rear Guard"	Dekarchos
"Vanguard"	5	n/a	Pentarches
"Rear Guard"	4	n/a	Tetrarches

The Imperial *tagmata*

The *tagmata* (τάγματα, "regiments") were the professional standing army of the Empire, formed by Emperor Constantine V after the suppression of a major revolt in the Opsician Theme in 741–743. Anxious to safeguard his throne from the frequent revolts of the thematic armies, Constantine reformed the old guard units of Constantinople into the new *tagmata* regiments, which were meant to provide the emperor with a core of professional and loyal troops.^[5] They were typically headquartered in or around Constantinople, although in later ages they sent detachments to the provinces. The *tagmata* were exclusively heavy cavalry units and formed the core of the imperial army on campaign, augmented by the provincial levies of thematic troops who were more concerned with local defense.

The four main *tagmata* were:

- the *Scholai* (Gr. Σχολαί, "the Schools"), the most senior unit, the direct successor of the imperial guards established by Constantine the Great.
- the *Exkoubitoi* or *Exkoubitores* (Lat. *Excubiti*, Gr. Ἐξκούβιτοι, "the Sentinels"), established by Leo I.

- the *Arithmos* (Gr. Ἀριθμός, "Number") or *Vigla* (Gr. Βίγλα, from the Latin word for "Watch"), promoted from thematic troops by the Empress Eirene in the 780s, but of far older ancestry, as the archaic names of its ranks indicate.^[6] The regiment performed special duties on campaign, including guarding the imperial camp, relaying the Emperor's orders, and guarding prisoners of war.^[7]
- the *Hikanatoi* (Gr. Ἰκανάτοι, "the Able Ones"), established by Emperor Nicephorus I in 810.^[8]

There were also auxiliary *tagmata*, such as the *Noumeroi* (Gr. Νούμεροι), a garrison unit for Constantinople, which probably included the *Teichistai* (Gr. Τειχισταί) or *tōn Teicheōn* regiment (Gr. τῶν Τειχέων, "of the Walls"), manning the Walls of Constantinople,^[8] and the *Optimatoi* (Gr. Ὀπτιμάτοι, "the Best"), a support unit responsible for the mules of the army's baggage train (the τοῦλδον, *touldon*).^[9]

There was also the *Hetaireia* (Gr. Ἑταιρεία, "Companions"), which comprised the various mercenary corps in Imperial service, subdivided in Greater, Middle and Lesser, each commanded by a *Hetaireiarchēs*

In addition to these more or less stable units, any number of shorter-lived *tagmata* were formed as favoured units of various emperors. Michael II raised the *Tessarakontarioi*, a special marine unit, and John I Tzimiskes created a corps called the *Athanatōi* (Gr. Ἀθάνατοι, the "Immortals") after the old Persian unit.

The army during the Komnenian dynasty

Establishment and successes

At the beginning of the Komnenian period in 1081, the Byzantine Empire had been reduced to the smallest territorial extent in its history. Surrounded by enemies, and financially ruined by a long period of civil war, the empire's prospects had looked grim. Yet, through a combination of skill, determination and years of campaigning, Alexios I Komnenos, John II Komnenos and Manuel I Komnenos managed to restore the power of the Byzantine Empire by constructing a new army from the ground up. The new force is known as the Komnenian army. It was both professional and disciplined. It contained formidable guards units such as the Varangian Guard and the Immortals (a unit of heavy cavalry) stationed in Constantinople, and also levies from the provinces. These levies included cataphract cavalry from Macedonia, Thessaly and Thrace, and various other provincial forces from regions such as the Black Sea coast of Asia Minor.

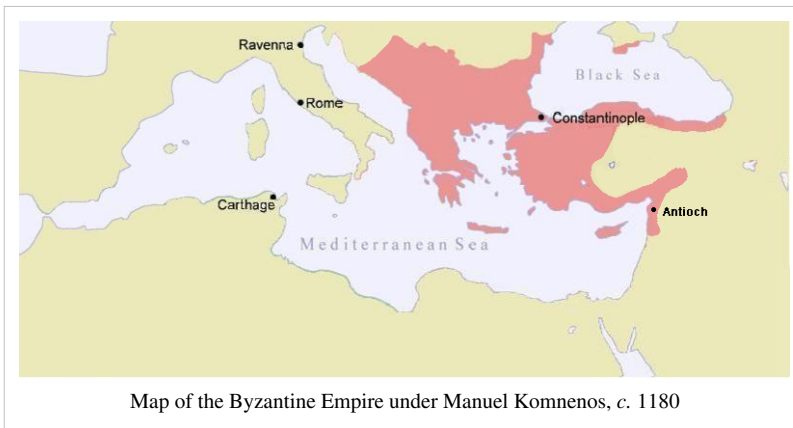
Under John II, a Macedonian division was maintained, and new native Byzantine troops were recruited from the provinces. As Byzantine Asia Minor began to prosper under John and Manuel, more soldiers were raised from the Asiatic provinces of Neokastra, Paphlagonia and even Seleucia (in the south east). Soldiers were also drawn from defeated peoples, such as the Pechenegs (cavalry archers), and the Serbs, who were used as settlers stationed at Nicomedia. Native troops were organised into regular units and stationed in both the Asian and European provinces. Komnenian armies were also often reinforced by allied contingents from the Principality of Antioch, Serbia and Hungary, yet even so they generally consisted of about two-thirds Byzantine troops to one-third foreigners. Units of archers, infantry and cavalry were grouped together so as to provide combined arms support to each other.



Emperor John II Komnenos became renowned for his superb generalship and conducted many successful sieges. Under his leadership, the Byzantine army reconquered substantial territories from the Turks.

This Komnenian army was a highly effective, well-trained and well-equipped force, capable of campaigning in Egypt, Hungary, Italy and Palestine. However, like many aspects of the Byzantine state under the Komnenoi, its biggest weakness was that it relied on a powerful and competent ruler to direct and maintain its operations. While Alexios, John and Manuel ruled (c. 1081–c. 1180), the Komnenian army provided the empire with a period of security that enabled Byzantine civilization to flourish. Yet, as we shall see, at the end of the twelfth century the competent leadership upon which the effectiveness of the Komnenian army depended largely disappeared. The consequences of this breakdown in command were to prove disastrous for the Byzantine Empire.

Neglect under the Angeloi



Map of the Byzantine Empire under Manuel Komnenos, c. 1180

In the year 1185, the emperor Andronikos I Komnenos was killed. With him died the Komnenos dynasty, which had provided a series of militarily competent emperors for over a century. They were replaced by the Angeloi, who have the reputation of being the most unsuccessful dynasty ever to occupy the Byzantine throne.

The army of the Byzantine empire at this point was highly centralised. It

was dominated by a system in which the emperor gathered together his forces and personally led them against hostile armies and strongholds. Generals were closely controlled, and all arms of the state looked to Constantinople for instruction and reward.

However, the inaction and ineptitude of the Angeloi quickly lead to a collapse in Byzantine military power, both at sea and on land. Surrounded by a crowd of slaves, mistresses and flatterers, they permitted the empire to be administered by unworthy favourites, while they squandered the money wrung from the provinces on costly buildings and expensive gifts to the churches of the metropolis. They scattered money so lavishly as to empty the treasury, and allowed such licence to the officers of the army as to leave the Empire practically defenceless. Together, they consummated the financial ruin of the state.

The empire's enemies lost no time in taking advantage of this new situation. In the east the Turks invaded the empire, gradually eroding Byzantine control in Asia Minor. Meanwhile in the west, the Serbs and Hungarians broke away from the empire for good, and in Bulgaria the oppressiveness of Angeloi taxation resulted in the Vlach-Bulgarian Rebellion late in 1185. The rebellion led to the establishment of the Second Bulgarian Empire on territory which had been vital to the empire's security in the Balkans. Kaloyan of Bulgaria annexed several important cities, while the Angeloi squandered the public treasure on palaces and gardens and attempted to deal with the crisis through diplomatic means. Byzantine authority was severely weakened, and the growing power vacuum at the centre of the empire encouraged fragmentation, as the provinces began to look to local strongmen rather than the government in Constantinople for protection. This further reduced the resources available to the empire and its military system, as large regions passed outside central control.

Analysis of the Byzantine military collapse

Structural weaknesses

It was in this situation that the disintegration of the military 'theme' system, which had been the foundation of the empire's remarkable success from the eighth to eleventh centuries, revealed itself as a real catastrophe for the Byzantine state.

The first advantage of the theme system had been its numerical strength. It is thought that the Byzantine field army under Manuel I Komnenos (r. 1143–1180) had numbered some 40,000 men. However, there is evidence that the thematic armies of earlier centuries had provided the empire with a numerically superior force. The army of the theme of Thrakesion alone had provided about 9,600 men in the period 902–936, for example. Furthermore, the thematic armies had been stationed in the provinces, and their greater independence from central command meant that they were able to deal with threats quickly at a local level. This, combined with their greater numbers, allowed them to provide greater defense in depth.

The other key advantage of the theme system was that it had offered the Byzantine state good value for money. It provided a means of cheaply mobilising large numbers of men. The demise of the system meant that armies became more expensive in the long run, which reduced the numbers of troops that the emperors could afford to employ. The considerable wealth and diplomatic skill of the Komnenian emperors, their constant attention to military matters, and their frequent energetic campaigning, had largely countered this change. But the luck of the empire in having the talented Komneni to provide capable leadership was not a long term solution to a structural problem in the Byzantine state itself. After the death of Manuel I Komnenos in 1180, the Angeloi had not lavished the same care on the military as the Komneni had done, and the result was that these structural weaknesses began to manifest themselves in military decline. From 1185 on, Byzantine emperors found it increasingly difficult to muster and pay for sufficient military forces, while their incompetence exposed the limitations of the entire Byzantine military system, dependent as it was on competent personal direction from the emperor. The culmination of the empire's military disintegration under the Angeloi was reached on 13 April 1204, when the armies of the Fourth Crusade sacked Constantinople and dismantled the Byzantine Empire. The old Byzantine empire was at an end.

Conclusion

Thus, the problem was not so much that the Komnenian army was any less effective in battle (the thematic army's success rate was just as varied as that of its Komnenian counterpart); it is more the case that, because it was a smaller, more centralised force, the twelfth century army required a greater degree of competent direction from the emperor in order to be effective. Although formidable under an energetic leader, the Komnenian army did not work so well under incompetent or uninterested emperors. The greater independence and resilience of the thematic army had provided the early empire with a structural advantage that was now lost.

For all of the reasons above, it is possible to argue that the demise of the theme system was a great loss to the Byzantine empire. Although it took centuries to become fully apparent, one of the main institutional strengths of the Byzantine state was now gone. Thus it was not the army itself that was to blame for the decline of the empire, but rather the system that supported it. Without strong underlying institutions that could endure beyond the reign of each emperor, the state was extremely vulnerable in times of crisis. Byzantium had come to rely too much on individual emperors, and its continued survival was now no longer certain. While the theme system's demise did play a major role in the empire's military decline, other factors were important as well. These include:

- An increasing reliance on foreign mercenaries, which also contributed to the Byzantine Navy's decline.
 - A long, slow decay in the quality and prestige of the ordinary, non-elite Byzantine infantry.
 - A creeping Feudalism that helped to erode centralized administration.
 - Increasing emulation of Western (or *Latin*) weapons, equipment and warfare methods, beginning especially during the reign of Manuel I Komnenos.
-

Armies of the successor states and of the Palaeologi

After 1204 the emperors of Nicaea continued some aspects of the system established by the Komneni. However, despite the restoration of the empire in 1261, the Byzantines never again possessed the same levels of wealth, territory and manpower that had been available to the Komnenian emperors and their predecessors. As a result, the military was constantly short of funds. After the death of Michael VIII Palaiologos in 1282, unreliable mercenaries such as the grand Catalan Company came to form an ever larger proportion of the remaining forces.



Map of the Byzantine Empire in c. 1270. After the damage caused by the collapse of the theme system, the mismanagement of the Angeloi and the catastrophe of the Fourth Crusade, for which the Angeloi were largely to blame, it proved impossible to restore the empire to the position it had held under Manuel Komnenos.

At the fall of Constantinople in 1453, the Byzantine army totaled about 7,000 men, 2,000 of whom were foreign mercenaries. Against the 80,000 Ottoman troops besieging the city, the odds were hopeless. The Byzantines resisted the third attack by the Sultan's elite Janissaries and according to some accounts on both sides were on the brink of repelling them, but a Genoan general in charge of a section of the defense, Giovanni Giustiniani, was grievously wounded during the attack, and his evacuation from the ramparts caused a panic in the ranks of the defenders. Many of the Italians, who were paid by Giustiniani himself, fled the battle. Some historians suggest that the Kerkoporta gate in the Blachernae section had been left unlocked, and the Ottomans soon discovered this mistake – although accounts indicate that this gain for the Ottomans was in fact contained by defenders and pushed back. The Ottomans rushed in. Emperor Constantine XI himself led the last defense of the city by himself. Throwing aside his purple regalia, he stood in front of the oncoming Ottoman Turks with sword and shield in hand. The emperor was struck twice by the Turk troops, the mortal blow being a knife to his back. There, on the walls of Constantinople, alone and abandoned by his remaining troops, the emperor died. The fall of the Byzantine capital meant the end of the Roman empire. The Byzantine army, the last surviving direct descendant of the Roman legions, was finished.

Manpower

The exact size and composition of the Byzantine army and its units is a matter of considerable debate, due to the scantness and ambiguous nature of the primary sources. The following table contains approximate estimates. All estimates excludes the number of oarsmen, for those estimates see Byzantine Navy.

Year	Army
300	311,000 ^[10]
457	303,000 ^[10]
518	271,000 ^[11]
540	341,000 ^[11]
565	150,000 ^[12]
641	109,000 ^[13]
668	109,000 ^[14]
773	80,000 ^[15]
809	90,000 ^[16]
840	120,000 ^[17]
959	144,000 ^[18]
963	150,000 ^[17]
1025	250,000 ^[19]
1053	200,000 ^[20]
1077	25,000 ^[21]
1081	20,000 ^[22]
1143	50,000 ^[23]
1282	20,000 ^[24]
1320	4,000 ^[25]
1321	3,000 ^[26]
1453	1,500 ^[27]

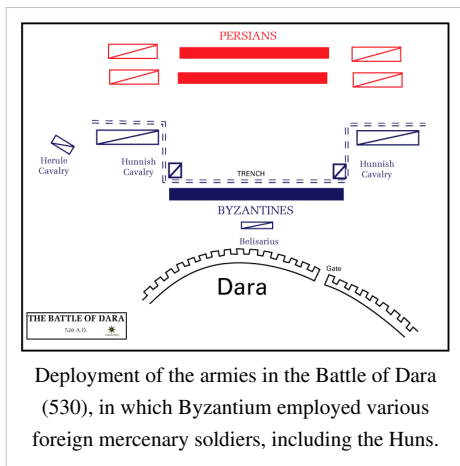
According to Mark Whittow the military resources of the Byzantine Empire were broadly comparable to those of other early medieval European states. As such Byzantium may not have been wealthier or more powerful than other European states, but it was more centralized and more united, and this was a vital factor in its survival.^[28] By using various Byzantine sources he guesses the entire cavalry forces of the empire, between the 8th and 10th centuries, were somewhere just over 10,000 and the number of infantry 20,000,^[29] and argues that the Byzantine armies should be numbered in hundreds or thousands and not tens of thousands.^[30]

Byzantine troop types

Cataphracts

The word cataphract (from the Greek κατάφρακτος, *kataphraktos*, with a literal meaning of 'completely armored' in English) was what Greek – and later Latin-speaking peoples used to describe heavy cavalry. Historically the cataphract was a heavily-armed and armoured cavalryman who saw action from the earliest days of Antiquity up through the High Middle Ages. Originally, the term cataphract referred to a type of armour worn to cover the whole body and that of the horse. Eventually the term described the trooper himself. The cataphracts were both fearsome and disciplined. Both man and horse were heavily armoured, the riders equipped with lances, bows and maces. These troops were slow compared to other cavalry, but their effect on the battlefield, particularly under the Emperor Nikephoros II, was devastating. More heavily armoured types of cataphract were called *clibanarii* (*klibanaphoroi*). These were eventually subsumed by the cataphract, and as such most Byzantine heavy cavalry became known as cataphracts.

Cavalry



The Byzantine cavalry were usually armed with bows, lances and swords, they were ideally suited to combat on the plains of Anatolia and northern Syria, which, from the seventh century onwards, constituted the principal battleground in the struggle against the forces of Islam. While not as heavily armoured as western Knights, they were more heavily armed using lance, mace and sword as well as strong composite bows which allowed them to achieve success against lighter, faster enemies, being particularly effective against both the Arabs and Turks in the east, and the Hungarians and Pechenegs in the west.

Infantry

The Byzantine Empire's military tradition originated in the late Roman period, and its armies always included professional infantry soldiers. Though they varied in relative importance during the Byzantine army's history, under Basil II in particular heavy infantry were an important component of the Byzantine army. These troops generally had mail armour, large shields, and were armed with swords and spears. Under militarily competent emperors such as Basil II, they were among the best heavy infantry in the world.

Pronoiars

Pronoiar troops began to appear during the twelfth century, particularly during the reign of the emperor Manuel I Komnenos (1143–1180). These were soldiers paid in land instead of money, but they did not operate under the old theme system of the middle Byzantine period. Pronoiai developed into essentially a license to tax the citizens who lived within the boundaries of the grant (the paroikoi). Pronoiars (those who had been granted a pronoia) became something like tax collectors, who were allowed to keep some of the revenue they collected. These men are therefore generally considered to have been the Byzantine equivalent of western knights: part soldiers, part local rulers. However, it is important to note that the emperor was still the legal owner of the Pronoiars' land. Usually cavalry, pronoiers would have been equipped with mail armour, lances, and horse barding. Manuel re-equipped his heavy cavalry in western style at some point during his reign; it is likely that many of these troops would have been pronoiers. These troops became particularly common after 1204, in the service of the Empire of Nicaea in western Asia Minor.

Akritoi

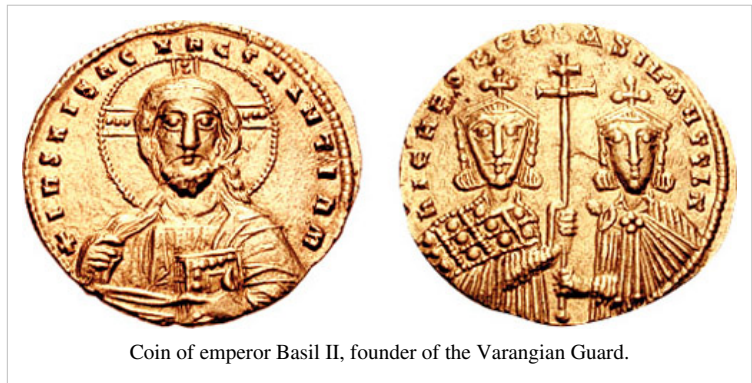
Akrites (plural *Akritoi* or *Akritai*) were defenders of the Anatolian borders of the Empire. They appeared after either the Arab conquests, or much later when Turkish tribes raided Anatolia from the east. The Akritoi units were formed from native Greeks living near the eastern borders. Whether such men were really soldier-farmers or lived on rents from smallholdings while concentrating on their military duties is still a matter of debate. The Akritoi were probably mostly light troops, armed with bows and javelins. They were most adept at defensive warfare, often against raiding Turkish light horsemen in the Anatolian mountains, but could also cover the advance of the regular Byzantine army. Their tactics probably consisted of skirmishing and ambushes in order to catch the fast-moving Turkish horse-archers. Greek folklore and traditional songs of the Byzantine era to the 19th century heavily feature Akrites and their (always exaggerated) deeds (see acritic songs).



A siege by Byzantine forces, Skylitzes chronicle
11th century.

Foreign and mercenary soldiers

The Byzantine army frequently employed foreign mercenary troops from many different regions. These troops often supplemented or assisted the empire's regular forces; at times, they even formed the bulk of the Byzantine army. But for most of the Byzantine army's long history, foreign and military soldiers reflected the wealth and might of the Byzantine empire, for the emperor who was able to gather together armies from all corners of the known world was formidable.



Coin of emperor Basil II, founder of the Varangian Guard.

Foreign troops during the late Roman period were known as the *foederati* ("allies") in Latin, and during the Byzantine period were known as the *Phoideratoi* (Gr. Φοιδεράτοι) in Greek. From this point, foreign troops (mainly mercenaries) were known as the *Hetairoi* (Gr. ἑταιρείαι, "Companionships") and most frequently employed in the Imperial Guard. This force was in turn divided into the Great Companionships (Μεγάλη Εταιρεία), the Middle Companionships (Μέση Εταιρεία), and the Minor Companionships (Μικρά Εταιρεία), commanded by their respective *Hetaireiarches* – "Companionship lords". These may have been divided upon a religious basis separating the Christian subjects, Christian foreigners, and non-Christians, respectively.^[31]

Additionally, during the Komnenian period, the mercenary units would simply be divided by ethnicity and called after their native lands: the *Inglinoi* (Englishmen), the *Phragkoi* (Franks), the *Skythikoi* (Scythians), the *Latinikoi* (Latins), and so on. Ethiopians even served during the reign of Theophilos. These mercenary units, especially the *Skythikoi*, were also often used as a police force in Constantinople.

The most famous of all Byzantine regiments was the legendary Varangian Guard. This unit traced its roots to the 6,000 Rus sent to Emperor Basil II by Vladimir of Kiev in 988. The tremendous fighting abilities of these axe-wielding, barbarian Northerners and their intense loyalty (bought with much gold) established them as an elite body, which soon rose to become the Emperors' personal bodyguard. This is further exemplified by the title of their commander, *Akolouthos* (Ακόλουθος, "Acolyte/follower" to the Emperor). Initially the Varangians were mostly of Scandinavian origin, but later the guard came to include many Anglo-Saxons (after the Norman Conquest) as well. The Varangian Guard fought at the Battle of Beroia in 1122 with great distinction, and were present at the Battle of

Sirmium in 1167, in which the Byzantine army smashed the forces of the Kingdom of Hungary. The Varangian Guard is thought to have been disbanded after the sack of Constantinople by the forces of the Fourth Crusade in 1204; nearly all contemporary accounts agreed that they were the most important Byzantine unit present and were instrumental in driving off the first Crusader assaults.

Byzantine weapons

The Byzantines originally used weapons developed from their Roman origins, swords, spears, javelins, slings and bows etc. However they were gradually influenced by the weapons of their Turkish and Arab neighbors, adopting the use of the composite bow and the cavalry mace

There were many sword (*xiphos*) types; straight, curved, one- and two-handed, which are depicted in illustrations. According to the *Strategika*, by the sixth century the short Roman *gladius* had been abandoned in favor of a long two-edged sword, the *spathion*, used by both the infantry and cavalry. The tenth century *Sylloge tacticorum* gives the length of this kind of sword as the equivalent of 94 cm and mentions a new saber-like sword of the same length, the *paramerion*, a curved one-edged slashing weapon for cavalrymen. Both weapons could be carried from a belt or by a shoulder strap.

Infantrymen and cavalrymen carried spears for thrusting and javelins for throwing. Cavalrymen of the sixth and seventh century wielded lances with a thong in the middle of the shaft (Avar style) and a pennant. Infantrymen's spears (*kontaria*) in the tenth century were 4-4.5 meters long (cavalry lances were slightly shorter) with an iron point (*xipharion*, *aichme*). One type of spear, the *menaulion*, is described in detail; it was very thick, taken whole from young oak or cornel saplings and capped by a long blade (45–50 cm), for use by especially strong infantrymen (called *menaulatoi* after their weapon) against enemy *kataphraktoi* - an excellent example of a weapon and a type of specialized soldier developed for a specific tactical role. Both light infantry and cavalry carried javelins (*akontia*, *riptaria*) no longer than three meters.

Maces (*rabdia*) and axes (*pelekia*, *tzikouria*) served as shock weapons. The tenth century *kataphraktoi* carried heavy all-iron maces (*siderorabdia*) – six-, four- or three-cornered – to smash their way through enemy infantry. Infantrymen used maces and battle-axes in hand-to-hand combat; the two handed axe was the preferred weapon of the mercenaries from Rus' and Varangian Guard of the tenth and eleventh centuries. Byzantine axes were single-bladed (rounded or straight edged), sometimes with a spike opposite the blade.

The sling (*sphendone*) and the bow (*toxon*) were the weapons used by light soldiers. Slings were the ordinary hand-held type; the Roman staff sling (*fustibalis*) was apparently little used. The Byzantine bow, like the late Roman bow, was the composite, reflex type featuring an unbendable horn grip with the reinforced wooden bowstave slung in reverse of the bow's natural flex when unstrung. A bowshot (flight, not target, range) is over three hundred meters for an infantry bow, but cavalry bows, standing 1.2 meters high, were smaller and less tightly strung for greater accuracy and ease of handling, they had a flight range of 130–35 meters. The *solenarion* is a hollow tube through which an archer could launch several small arrows (*mues*, i.e., "mice") at a time; Anna Komnene remarked that the Crusader's Western-type crossbow, which she called a *tzangra*, was unknown to Byzantium before the 12th century.



Byzantine fresco of Joshua from the Hosios Loukas monastery, 12th to 13th century. A good view of the construction of the lamellar *klivanion* cuirass.

Unusually, the Biblical figure is shown wearing headgear; the helmet and its attached neck and throat defences appear to be cloth-covered. Joshua is shown wearing a straight *spathion* sword.

Evidence for Weapons

Representational evidence, including propaganda monuments, gravestones, tombs, and the Exodus fresco, often shows Roman soldiers with one or two spears; one tombstone shows a soldier with five shorter javelins.^{[32][33]} Archaeological evidence, from Roman burials and Scandinavian bog-deposits, shows similar spearheads, though the shafts are rarely preserved.^{[34][35]}

Representational evidence sometimes still shows Roman swords.^{[36][37]} Archaeological evidence shows that the gladius has disappeared; various short *semispathae* supplement the older *pugiones*^{[38][39]} while medium-long *spathae* replace the medium-short *gladii*.^{[36][40]} These have the same straight double-edged blades as older Roman swords.^{[41][42]}

Representational evidence and recovered laths, as well as arrowheads and bracers, show Roman use of composite bows.^{[43][44]}

Evidence for Shields

Representational evidence, recovered bosses, and some complete shields from Dara, show that most Roman infantry and some Roman cavalry carried shields.^{[45][46]}

Evidence for Armor

Although the representational evidence, including gravestones and tombs, often shows soldiers without armor, the archaeological evidence includes remains of lamellar, mail, and helmets.^{[47][48]}

Byzantine military philosophy

Further information: Byzantine battle tactics

It is worth noting that the Empire never developed or understood the concept of a "holy war". Its neighbours' concepts of Jihad and Crusade seemed to it gross perversions of scripture or simple excuses for looting and destruction. Emperors, generals and military theorists alike found war to be a failing of governance and political relations, to be avoided whenever possible. Only wars waged defensively or to avenge a wrong could in any sense be considered just, and in such cases the Byzantines felt that God would protect them.

Major battles of the Byzantine Empire

Early Byzantine period

- Battle of Callinicum (531)
- Battle of Tricamarum (533)
- Battle of Taginae (552)
- Battle of Nineveh (627)
- Battle of Mu'tah (629)
- Battle of Firaz (634)
- Battle of Ajnadayn (634)
- Battle of Fahl (635)
- Battle of Yarmouk (636)
- Battle of Iron Bridge (637)
- Battle of Ongala (680)
- Battle of Carthage (698)
- Siege of Constantinople (718)

Middle Byzantine period

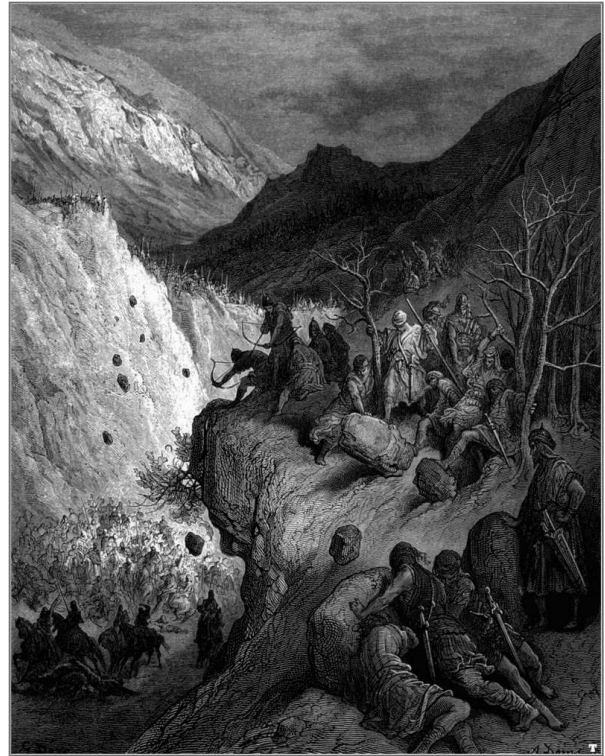
- Battle of Pliska (811)
- Battle of Bulgarophygon (896)
- Battle of Acheloos (917)
- Battle of Kleidion (1014)
- Battle of Manzikert (1071)
- Battle of Dyrrhachium (1081)
- Battle of Levounion (1091)
- Siege of Nicaea (1097)
- Battle of Sirmium (1167)
- Battle of Myriokephalon (1176)

Late Byzantine period

- Battle of Antioch on the Meander (1211)
- Battle of Pelagonia (1259)
- Fall of Constantinople (1453)

Notes

- [1] Romano-Byzantine Armies 4th – 9th Century – Dr David Nicolle
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- [5] Haldon (1999), p. 78
- [6] Haldon (1999), p. 11
- [7] J. B. Bury, p. 60
- [8] J. B. Bury, p. 48
- [9] Haldon (1999), p. 158
- [10] W. Treadgold, *A History of the Byzantine State and Society*, 145
- [11] W. Treadgold, *A History of the Byzantine State and Society*, 277
- [12] J. Norwich, *Byzantium: The Early Centuries*, 259



This image by Gustave Doré shows the Turkish ambush at the battle of Myriokephalon (1176)

- [13] W. Treadgold, *A History of the Byzantine State and Society*, 374
- [14] W. Treadgold, *A History of the Byzantine State and Society*, 412
- [15] W. Treadgold, *A History of the Byzantine State and Society*, 373
- [16] W. Treadgold, *A History of the Byzantine State and Society*, 547
- [17] W. Treadgold, *A History of the Byzantine State and Society*, 537
- [18] W. Treadgold, *A History of the Byzantine State and Society*, 576
- [19] Treadgold (1995), p. 85
- [20] W. Treadgold, *A History of the Byzantine State and Society*, 595
- [21] J. Birkenmeier, *The Development of the Komnenian Army: 1081–1180*, 62
- [22] W. Treadgold, *A History of the Byzantine State and Society*, 612
- [23] W. Treadgold, *A Concise History of Byzantium*, 236
- [24] G. Ostrogorsky, *History of the Byzantine State*, 483
- [25] W. Treadgold, *A Concise History of Byzantium*, 224
- [26] W. Treadgold, *A History of the Byzantine State and Society*, 819
- [27] I. Heath, *Byzantine Armies: AD 1118–1461*, 37
- [28] The making of orthodox Byzantium, 600–1025, 1996, Mark Whittow, p.193
- [29] The making of orthodox Byzantium, 600–1025, 1996, Mark Whittow, p.192
- [30] The making of orthodox Byzantium, 600–1025, 1996, Mark Whittow, p.193
- [31] Constantine VII, *The Book of Ceremonies*.
- [32] Stephenson, I.P., 2001, *Roman Infantry Equipment*, pp. 54–58.
- [33] Bishop, M.C. & Coulston, J.C.N., 2006, *Roman Military Equipment: From the Punic Wars to the Fall of Rome*, pp. 151–152, 175 & 200–202.
- [34] Stephenson, I.P., 2001, *Roman Infantry Equipment*, pp. 52–60.
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- [46] Bishop, M.C. & Coulston, J.C.N., 2006, *Roman Military Equipment: From the Punic Wars to the Fall of Rome*, pp. 179–182 & 216–218.
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External links

- De re militari.org (<http://www.deremilitari.org>) – The Society for Medieval Military History
 - http://www.servinghistory.com/topics/Byzantine_army
-

Komnenian Byzantine army

Byzantine army of the Komnenian period	
Participant in the Byzantine-Seljuk wars, the Byzantine-Bulgarian Wars, the Byzantine-Norman Wars, the Crusades and other conflicts	
<div> </div> <p>Emperor John II Komnenos, the most successful commander of the Komnenian army.</p>	
Active	1081–1204 AD
Leaders	Byzantine Emperor
Headquarters	Constantinople
Area of operations	Asia Minor, Southern Italy, Balkans, Hungary, Syria, Egypt.
Strength	50,000 ^[1] (1143)
Part of	Byzantine Empire
Became	Nicaean/Palaiologan army
Allies	Venice, Genoa, Danishmends, Georgia, Galicia, Vladimir-Suzdal, Kiev, Ancona, Hungary, Jerusalem, Tripoli, Antioch, Mosul.
Opponents	Venice, Hungary, Danishmends, Bulgaria, Seljuks, Antioch, Sicily, Armenian Cilicia, Fatimids, Ayyubids, Pechenegs, Cumans.
Battles/wars	Dyrrhachium, Levounion, Nicaea Philomelion, Beroia, Sirmium, Myriokephalon, Hyelion and Leimocheir, Cotyaeum, Constantinople (1203), Constantinople (1204)

The **Komnenian Byzantine army** or **Komnenian army**^[2] was the force established by Byzantine emperor Alexios I Komnenos during the late 11th/early 12th century, and perfected by his successors John II Komnenos and Manuel I Komnenos during the 12th century. Alexios constructed a new army from the ground up, completely replacing previous forms of the Byzantine army. The Komnenian army was instrumental in the Komnenian restoration of the Byzantine Empire during the period of its existence, and was deployed in the Balkans, Italy, Hungary, Russia, Anatolia, Syria, the Holy Land and Egypt.

Introduction

At the beginning of the Komnenian period in 1081, the Byzantine Empire had been reduced to the smallest territorial extent in its history. Surrounded by enemies, and financially ruined by a long period of civil war, the empire's prospects had looked grim. The state lay defenseless before, as the Byzantine army had been reduced to a shadow of its former self. During the 11th century, decades of peace and neglect had reduced the old thematic forces, and the military and political anarchy following the Battle of Manzikert in 1071 had destroyed the professional *tagmata*, the core of the Byzantine army. At Manzikert, units tracing their lineage for centuries back to the Roman Empire were wiped out, and the subsequent loss of Asia Minor deprived the Empire of its main recruiting ground. In the Balkans,

at the same time, the Empire was exposed to invasions by the Norman Kingdom of Sicily, the expansionist activities of the principality of Dioclea (Duklja) and by Pecheneg raids across the Danube.

The Byzantine army's nadir was reached in 1091, when Alexios I could manage to field only 500 soldiers from the Empire's professional forces. These formed the nucleus of the army, with the addition of the armed retainers of Alexios' relatives and the nobles enrolled in the army, plus the substantial aid of a large force of allied Cumans, which won the Battle of Levounion against the Pechenegs (Petcheneks or Patzinaks).^[3] Yet, through a combination of skill, determination, and years of campaigning, Alexios, John, and Manuel Komnenos managed to restore the power of the Byzantine Empire by constructing a new army from scratch. This process should not, however, at least in its earlier phases, be seen as a planned exercise in military restructuring. In particular, Alexios I was often reduced to reacting to events rather than controlling them; the changes he made to the Byzantine army were largely done out of immediate necessity and were pragmatic in nature.

The new force had a core of units which were both professional and disciplined. It contained formidable guards units such as the Varangians, the *Athanatoi*, a unit of heavy cavalry stationed in Constantinople, the *Vardariotai* and the *Archontopouloi*, recruited by Alexios from the sons of dead Byzantine officers, foreign mercenary regiments, and also units of professional soldiers recruited from the provinces. These provincial troops included *kataphraktoi* cavalry from Macedonia, Thessaly, Thrace, and various other provincial forces. Alongside troops raised and paid for directly by the state the Komnenian army included the armed followers of members of the wider imperial family and its extensive connections. In this can be seen the beginnings of the feudalisation of the Byzantine military. The granting of *pronoia* holdings, where land, or more accurately rights to revenue from land, was held in return for military obligations, was beginning to become a notable element in the military infrastructure towards the end of the Komnenian period, though it became much more important subsequently.

The Komnenian period, despite almost constant warfare, is notable for the lack of military treatise writing, which seems to have petered out during the 11th century. So, unlike in earlier periods, there are no detailed descriptions of Byzantine tactics and military equipment. Information on military matters in the Komnenian era must be gleaned from passing comments in contemporary historical and biographical literature, court panegyrics and from pictorial evidence.

Size

During the reign of Alexios I, the field army numbered around 20,000 men.^[4] By the end of John II's reign, the entire Byzantine army amounted to about 50,000 men.^[1] By 1180 and the death of Manuel Komnenos, whose frequent campaigns had been on a grand scale, the army was probably considerably larger. Modern historians have estimated the size of Komnenian armies on campaign at about 15,000 to 20,000 men.^[5] In 1176 Manuel I managed to gather approximately 35–40,000 men, of which 25,000 were Byzantines and the rest were allied contingents from Hungary, Serbia, and Antioch, though this was for an exceptional campaign.^[6] His military resources stretched to putting another, smaller, army in the field simultaneously.^[7] During this period, the European provinces in the Balkans were able to provide more than 6,000 cavalry in total while the Eastern provinces of Asia Minor provided about the same number. This amounted to more than 12,000 cavalry for the entire Empire, not including those from allied contingents.^[8] In 1200, the field army numbered 30,000 men while the entire army was estimated at 60,000 men (of which 15,000 men were foreign mercenaries).^{[9][10]} Constantinople had a permanent garrison of 10,000 troops not including the 5,000 Varangians garrisoned in the two Imperial palaces.^[11]

Structure

Command hierarchy and unit composition

Under the emperor, the commander-in-chief of the army was the *megas domestikos* (Grand Domestic). His second-in-command was the *prōtostratōr*. The commander of the navy was the *megas doux* (Grand Duke), who was also the military commander for Crete, the Aegean Islands and the southern parts of mainland Greece. A commander entrusted with an independent field force or one of the major divisions of a large expeditionary army was termed a *stratēgos* (general). Individual provinces and the defensive forces they contained were governed by a *doux* (duke) or *katepanō* (though this title was sometimes bestowed on the senior administrator below the *doux*), who was a military officer with civil authority; under the *doux* a fortified settlement or a fortress was commanded by an officer with the title *kastrophylax* (castle-warden). Lesser commanders, with the exception of some archaic titles, were known by the size of the unit they commanded, for example a *tagmatarchēs* commanded a *tagma* (regiment). The commander of the Varangians had a unique title, *akolouthos* (acolyte), indicative of his close personal attendance on the emperor.^[12]



Gold icon of St Demetrios as a cavalryman. The saint is armoured in an *epilōrikion*-covered *klivanion* with splint armour for the upper arms and a splint *kremasmata*. The detailing at the ankle may indicate that *podopsella* greaves are being depicted. Note the overtly straight-legged riding posture (with the heel lower than the toes) indicative of the adoption of Western-style lance techniques.

Byzantine, 12th century

During the Komnenian period the earlier names for the basic units of the Byzantine cavalry, *bandon* and *moira*, gradually disappear to be replaced by the *allagion* (ἀλλάγιον), believed to have been between 300 and 500 men strong. The *allagion*, commanded by an *allagatōr*, was probably divided into subunits of 100, 50 and 10 men. On campaign the *allagia* could be grouped together (usually in threes) into larger bodies called *taxeis*, *syntaxeis*, *lochoi* or *tagmata*.^[13] The infantry unit was the *taxiarchia*, a unit type first recorded under Nikephoros II Phokas; it was theoretically 1000 men strong, and was commanded by a *taxiarchēs*.^[14]

Guards units and the Imperial household



Though Georgian and from the 11th century this icon of St. George shows the armour most often depicted on Byzantine heavy cavalrymen of the Komnenian period. Despite being superficially "Classical" in appearance the armour is in fact contemporary: a lamellar *klivanion* cuirass with tubular splint defences for the upper arms and the *kremasmata*, a splinted 'skirt,' to protect the hips and thighs; the boots are of a typical knee-length Byzantine type employed by cavalry.

Many of the earlier guard units did not survive the reign of Alexios I; the *scholai*, Immortals (*athanatoi*), and *exkoubitoi* are not mentioned in the reigns of his immediate successors. The notable exceptions to this process being the Varangians and *vestiaritai*, and probably the *archontopouloi*.^[15] The *hetaireia* (literally "companions"), commanded by the *megas hetaireiarchēs*, is still mentioned, though it was always more a collection of individual units under an administrative title than a regiment as such.^[16] In this period, the Varangian Guard consisted of Englishmen, Russians, and Scandinavians, totalling 5,000 men.^[9] Immediately after the Battle of Dyrrhachium, Alexios I recruited 2,000 men to form the *tagma* of the *archontopouloi*.^[17] The Vardariots, a cavalry unit initially recruited from the Christianized Magyars of the Vardar valley, were a later addition to the guard and were probably raised by John II. They were commanded by an officer with the rank of *primmikērios*.^[18] Of increasing importance during the family-centric Komnenian period were the men known as *oikeioi* (οἰκεῖοι, "those of the household"); when mobilized for war the *oikeioi* were the equivalent of the household knights of western kings and would have served as *kataphraktoi*. These household troops would have included the emperor's personal retinue, his relatives and close associates, also accompanied by their immediate retinues, and the young aristocrats attached to the court; plus they probably also included the *vestiaritai* guards.^[19]

The *oikeioi* would have been equipped with the finest arms and armour and mounted on the highest quality war-horses available. Although not an entirely formal regiment the "household" (*oikos*) would have been a formidable fighting force, however, it would have been available only when the emperor took the field in person.^[20] Officers of the *vestiaritai* were given the lofty court title of *sebastos* and two of their number, Andronikos Lampardas and Alexios Petraliphas, were prominent generals.^[21] Under Alexios I, and probably subsequently, the imperial *oikos* also served as a sort of "staff college" for training promising young officers. Alexios took 300 young officers into his household, whom he trained personally. In the campaign against Bohemund in 1107-8 the best of these officers commanded the blockading forces keeping the Norman army pent up on the Albanian coast. The victorious outcome of this campaign probably resulted, in part, from the increased discipline the Byzantine forces showed due to the quality of their commanders.^[22]

Native regiments

In the course of the 11th century the units of part-time soldier-farmers belonging to the *themata* (military provinces) were largely replaced by smaller, full-time, provincial *tagmata* (regiments).^[23] The political and military anarchy of the later 11th century meant that it was solely the provincial *tagmata* of the southern Balkans which survived. These regiments, whose soldiers could be characterized as "native mercenaries," became an integral part of the central army and many field armies of the Komnenian period, the *tagmata* of Macedonia, Thrace and Thessaly being particularly notable. Though raised in particular provinces these regiments had long ceased to have any local defence role. As regions were reconquered and brought under greater control provincial forces were re-established, though initially they often only served to provide local garrisons. In the reign of Manuel I the historian Niketas Choniates mentions a division of a field army composed of "the eastern and western *tagmata*." This wording implies that regular regiments

were once again being raised in Anatolia.^[24] Military settlers, often derived from defeated foes, also supplied soldiers; one such group of settlers, defeated Pechenegs, was settled in the Moglena district and provided a unit to the army; another was composed of Serbs who were settled around Nicomedia in Anatolia. Towards the end of the period *pronoia* revenue grants, from the income generated by parcels of land, allowed the provinces to be used to raise heavy cavalymen with less immediate drain on the state treasury. The origins and organisation of the native infantry of the Byzantine army of this period are obscure. It is known that there was an official register of soldiers serving as infantry, but their geographical origins and unit names are not recorded.^[25] As the native cavalry were organised into regional units it is probable that the infantry had a similar organisation. It is possible that each native provincial *tagma*, such as that described in the sources as the "Macedonian Legion" or "Macedonian Division," included an infantry *taxiarchia*, or possibly more than one, alongside the better attested contingents of *kataphraktos* heavy cavalry.

Foreign regiments and allied contingents

The central army (*basilika allagia* or *taxeis*), in addition to the guards units and the native regiments raised from particular provinces, comprised a number of *tagmata* of foreign soldiers. These included the *latinikon*, a heavy cavalry formation of Western European 'knights,' and members of families of western origin who had been in Byzantine employ for generations. It has been suggested that to regard these knights as mercenaries is somewhat mistaken and that they were essentially regular soldiers paid directly from the state treasury, but having foreign origins or ancestry.^[26] Another unit was the *tourkopouloi* ("sons of Turks"), which, as its name implies, was composed of Byzantinised Turks and mercenaries recruited from the Seljuk realms. A third was the *skythikon* recruited from the Turkic Pechenegs, Cumans and Uzes of the Ukrainian Steppes.^[27]



12th century western European knights

In order to increase the size of his army, Alexios I even recruited 3,000 Paulicians from Philippopolis and formed them into the "*Tagma* of the Manichaeans", while 7,000 Turks were also hired.^[28] Foreign mercenaries and the soldiers provided by imperial vassals (such as the Serbs and Antiochenes), serving under their own leaders, were another feature of the Byzantine army of the time. These troops would usually be placed under a Byzantine general as part of his command, to be brigaded with other troops of a similar fighting capability, or combined to create field forces of mixed type. However, if the foreign contingent were particularly large and its leader a powerful and prominent figure then it might remain separate; Baldwin of Antioch commanded a major division, composed of Westerners (Antiochenes, Hungarians and other 'Latins'), of the Byzantine army at the Battle of Myriokephalon. The Byzantines usually took care to mix ethnic groups within the formations making up a field army in order to minimize the risk of all the soldiers of a particular nationality changing sides or decamping to the rear during battle. During the early part of the 12th century, the Serbs were required to send 300 cavalry whenever the Byzantine emperor was campaigning in Asia Minor. This number was increased after Manuel I defeated the Serb rebellion in 1150 to 2,000 Serbs for European campaigns and 500 Serbs for Anatolian campaigns.^[29] Towards the end of the Komnenian period Alan soldiers, undoubtedly cavalry, became an important element in Byzantine armies.

Armed followers of the aristocracy

The semi-feudal forces raised by the *dynatoi* or provincial magnates were a useful addition to the Byzantine army, and during the middle years of the reign of Alexios I probably made up the greater proportion of many field armies. Some leading provincial families became very powerful; for example, the Gabras family of Trebizond achieved virtual independence of central authority at times during the 12th century.^[30] The wealthy and influential members of the regional aristocracy could raise substantial numbers of troops from their retainers, relatives and tenants. Their quality, however, would tend to be inferior to the professional troops of the *basilika allagia*. The "personal guards" of aristocrats who were also generals in the Byzantine army are also notable in this period. These guards would have resembled smaller versions of the imperial *oikos*. The *sebastokrator* Isaac, brother of John II, even maintained his own unit of *vestiariitai* guards.^[31] The guard of the *megas domestikos* John Axouch was large enough to put down an outbreak of rioting between Byzantine troops and allied Venetians during the siege of Corfu in 1149.^[32] Such units would have been composed of well-equipped, effective soldiers and would often have included kinsmen of the general.

Equipment: Arms and Armour

The arms and armour of the Byzantine forces in the late 11th and 12th centuries were generally more sophisticated and varied than those found in contemporary Western Europe. Byzantium was open to military influences from the Muslim world and the Eurasian steppe, the latter being especially productive of military equipment innovation.

Arms

Close combat troops, infantry and cavalry, made use of a spear, of varying length, usually referred to as a *kontarion*. Specialist infantry called *menavlatoi* used a heavy-shafted weapon called the *menavlion* the precise nature of which is uncertain; they are mentioned in the earlier *Sylloge Tacticorum* but may still have been extant. Swords were of two types: the *spathion* which was straight and double edged and differed only in details of the hilt from the typical 'sword of war' found in Western Europe, and the *paramērion* which appears to have been a form of single-edged, perhaps slightly curved, sabre.^[33] Most Byzantine soldiers would have worn swords as secondary weapons, usually suspended from a baldric rather than a waist belt. Heavy cavalry are described (in slightly earlier writings) as being doubly equipped with both the *spathion* and *paramērion*.^[34] Some missile-armed skirmish infantry used a relatively light axe (*tzikourion*) as a secondary weapon, whilst the Varangians were known as the "Axe-bearing Guard" because of their use of the double-handed Danish axe. The *rhomphaia* a long-bladed, cleaver-like, weapon was carried by guardsmen in close attendance on the emperor.^[35] Heavy cavalry made use of maces.^[36] Byzantine maces were given a variety of names including: *mantzoukion*, *apelatikion* and *siderorabdion*, suggesting that the weapons themselves were of varied construction.



St. Demetrios (Byzantine ivory icon, c. 1000). The saint is shown wearing a lamellar *klivanion* with splint armour defences for the upper arms incorporating plate pauldrons, the splint *kremasmata* defences for the hips and thighs match the arm defences. The bare legs are a classical convention

Missile weapons included a javelin, *riptarion*, used by light infantry and powerful composite bows used by both infantry and cavalry. The earlier Byzantine bow was of Hunnic origin, but by the Komnenian period bows of Turkish

form were in widespread use. Such bows could be used to fire short bolts (*myai*, "flies") with the use of an 'arrow guide' called the *sōlēnarion*. Slings and staff-slings are also mentioned on occasion.^[37]

Shields



St. George as a Byzantine cavalryman wearing a *kivanion* with splint defences for the arms and a splint *kremasmata*. The *kremasmata* skirt shows evidence of a construction of splints secured by rivets and lacing. Note again the straight-legged riding posture. Damaged steatite icon, Byzantine 12th century.

Shields, *skoutaria*, were usually of the long "kite" shape, though round shields are still shown in pictorial sources. Whatever their overall shape, all shields were strongly convex. A large pavise-like infantry shield may also have been used.^[38]

Body armour

The Byzantines made great use of 'soft armour' of quilted, padded textile construction identical to the "jack" or *aketon* found later in the Latin West. Such a garment, called the *kavadion*, usually reaching to just above the knees with elbow or full-length sleeves, was often the sole body protection for lighter troops, both infantry and cavalry. Alternatively the *kavadion* could provide the base garment (like an arming doublet) worn under metallic armour by more heavily protected troops.^[39] Another form of padded armour, the *epilōrikion*, could be worn over a metal cuirass.

The repertoire of metal body armour included mail (*lōrikion alysidōton*), scale (*lōrikion folidōton*) and lamellar (*kivanion*). Both mail and scale armours were similar to equivalent armours found in Western Europe,

a pull-on "shirt" reaching to the mid-thigh or knee with elbow length sleeves. The lamellar *kivanion* was a rather different type of garment. Byzantine lamellar, from pictorial evidence, possessed some unique features. It was made up of round-topped metal lamellae riveted, edge to edge, to horizontal leather backing bands; these bands were then laced together, overlapping vertically, by laces passing through holes in the lamellae. Modern reconstructions have shown this armour to be remarkably resistant to piercing and cutting weapons. Because of the expense of its manufacture, in particular the lamellae surrounding the arm and neck apertures had to be individually shaped, this form of armour was probably largely confined to heavy cavalry and elite units.^[40]

Because lamellar armour was inherently less flexible than other types of protection the *klivanion* was restricted to a cuirass covering the torso only. It did not have integral sleeves and reached only to the hips; it covered much the same body area as a bronze ‘muscle cuirass’ of antiquity. The *klivanion* was usually worn with other armour elements which would extend the area of the body protected. The *klivanion* could be worn over a mail shirt, as shown on some contemporary icons depicting military saints.^[41] More commonly the *klivanion* is depicted being worn with tubular upper arm defences of a splinted construction often with small pauldrons or ‘cops’ to protect the shoulders. In illustrated manuscripts, such as the Madrid Skylitzes, these defences are shown decorated with gold leaf in an identical manner to the *klivanion* thus indicating that they are also constructed of metal. Less often depicted are rerebraces made of “inverted lamellar.”^[42]

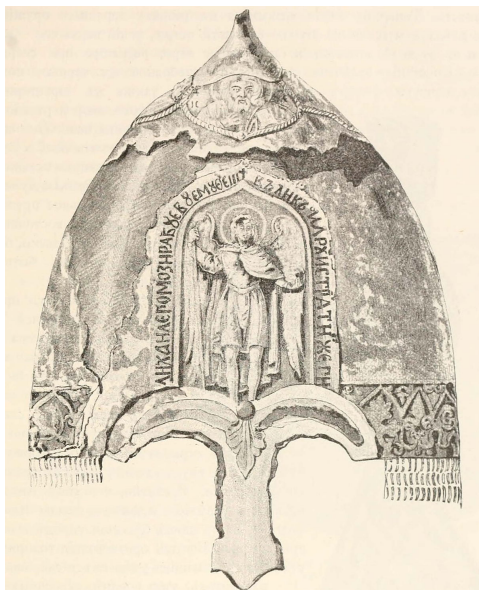
A garment often shown worn with the *klivanion* was the *kremasmata*. This was a skirt, perhaps quilted or of pleated fabric, usually reinforced with metal splints similar to those found in the arm defences. Although the splinted construction is that most often shown in pictorial sources, there are indications that the *kremasmata* could also be constructed of mail, scale or inverted lamellar over a textile base. This garment protected the hips and thighs of the wearer.^[43]

Defences for the forearm are mentioned in earlier treatises, under the name *cheiropsella* or *manikellia*, but are not very evident in pictorial representations of the Komnenian period. Most images show knee-high boots (*krepides*, *hypodemata*) as the only form of defence for the lower leg though a few images of military saints show tubular greaves (with no detailing indicative of a composite construction). These would presumably be termed *podopsella* or *chalkotouba*. Greaves of a splint construction also occur, very sporadically, in illustrated manuscripts and church murals.^[44] A single illustration, in the Psalter of Theodore of Caesarea dating to 1066, shows mail chausses being worn (with boots) by a Byzantine soldier.^[45] Mail defences for the hands and a type of metal sabaton for the foot are mentioned in Byzantine military writings of the late 10th century, but are not described or illustrated in the Komnenian era.



Byzantine fresco of Joshua from the Hosios Loukas monastery, 12th to 13th century. A good view of the construction of the lamellar *klivanion*. The image also shows the tubular nature of the upper arm defences of the raised arm, that is the defences are not made up of separate strips (*pteruges*). Unusually, the Biblical figure (Joshua) is shown wearing headgear; the helmet and its attached neck and throat defences appear to be cloth-covered. It is possible that the figure depicts mail *manikellia* guards for the forearm (the forearms are not shown in the same green as the hem of the tunic and there is no appearance of folds as would be used to indicate cloth).

Helmets



The helmet of a Russian prince dating to the early 13th century – probably very indicative of the appearance of Byzantine helmets with a single-piece skull. The decoration of this helmet, with its religious iconography, is of direct Byzantine inspiration.

Icons of soldier-saints, often showing very detailed illustrations of body armour, usually depict their subjects bare-headed for devotional reasons and therefore give no information on helmets and other head protection. Illustrations in manuscripts tend to be relatively small and give a limited amount of detail. However, some description of the helmets in use by the Byzantines can be given. The so-called 'Caucasian' type of helmet in use in the North Pontic Steppe area and the Slavic areas of Eastern Europe is also indicated in Byzantium. This was a tall, pointed spangenhelm where the segments of the composite skull were riveted directly to one another and not to a frame. Illustrations also indicate conical helmets, and the related type with a forward deflected apex (the Phrygian cap style), of a single-piece skull construction, often with an added brow-band. Helmets with a more rounded shape are also illustrated, being of a composite construction and perhaps derived from the earlier 'ridge helmet' dating back to Late Roman times.^[46]

Few archaeological specimens of helmets attributable to Byzantine manufacture have been discovered to date, though it is probable that some of the helmets found in pagan graves in the Ukrainian

steppe are of ultimately Byzantine origin. A rare find of a helmet in Yassenovo in Bulgaria, dating to the 10th century, may represent an example of a distinctively Byzantine style. This rounded helmet is horizontally divided: with a brow-band constructed for the attachment of a face-covering camail, above this is a deep lower skull section surmounted by an upper skull-piece raised from a single plate. The upper part of the helmet has a riveted iron crosspiece reinforcement.^[47] A high-quality Byzantine helmet, decorated in gilt brass inlay, was found in Vatra Moldovitei in Rumania. This helmet, dating to the late 12th century, is similar to the Yassenovo helmet in having a deep lower skull section with a separate upper skull. However, this helmet is considerably taller and of a conical 'pear shape', indeed it bears some similarity in outline to the later bascinet helmets of Western Europe. The helmet has a decorative finial, and a riveted brow-reinforce.^[48] A second helmet found in the same place is very like the Russian helmet illustrated here, having an almost identical combined brow-piece and nasal, this helmet has a single piece conical skull which is fluted vertically and has overall gilding. It has been characterised as a Russo-Byzantine helmet, indicative of the close cultural connection between Kievan Russia and Byzantium.^[49] A remarkably tall Byzantine helmet, of the elegant 'Phrygian cap' shape and dating to the late 12th century, was found at Pernik in Bulgaria. It has a single-piece skull with a separate brow-band and had a nasal (now missing) which was riveted to the skull.^[50]

In the course of the 12th century the brimmed 'chapel de fer' helmet begins to be depicted and is, perhaps, a Byzantine development.^[51]

Most Byzantine helmets are shown being worn with armour for the neck. Somewhat less frequently the defences also cover the throat and there are indications that full facial protection was occasionally afforded. The most often illustrated example of such armour is a sectioned skirt depending from the back and sides of the helmet; this may have been of quilted construction, leather strips or of metal splint reinforced fabric. Other depictions of helmets, especially the 'Caucasian' type, are shown with a mail aventail or camail attached to the brow-band (which is confirmed by actual examples from the Balkans, Romania, Russia and elsewhere).^[52]

Face protection is mentioned at least three times in the literature of the Komnenian period, and probably indicates face-covering mail, leaving only the eyes visible.^[53] This would accord with accounts of such protection in earlier military writings, which describe double-layered mail covering the face, and later illustrations. Such a complete camail could be raised off the face by hooking up the mail to studs on the brow of the helmet. However, the remains of metal 'face-mask' anthropomorphic visors were discovered at the site of the Great Palace of Constantinople in association with a coin of Manuel I Komnenos. Such masks were found on some ancient Roman helmets and on contemporary helmets found in grave sites associated with Kipchak Turks from the North Pontic Steppe. The existence of these masks could indicate that the references to face-protection in Byzantine literature describe the use of this type of solid visor.^[51]



A 'Caucasian type' spangenhelm

Horse armour



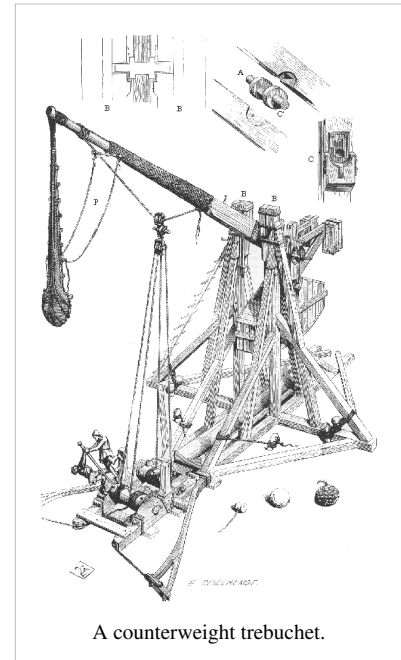
Depiction of two armoured horses in a 14th century Byzantine manuscript – also notable is the leftmost man hanging over the battlements, there is a seam depicted on the back of his *klivanion* suggesting that it opened at the back

There are no Byzantine pictorial sources depicting horse armour dating from the Komnenian period. The only description of horse armour in the Byzantine writing of this time is by Choniates and is a description of the front ranks of the cavalry of the Hungarian army at the Battle of Sirmium.^[54] However, earlier military treatises, such as that of Nikephoros Ouranos, mention horse armour being used and a later, 14th century, Byzantine book illustration shows horse armour. It is therefore very likely that horse armour continued to be used by the Byzantines through the Komnenian era; though its use was probably limited to the very wealthiest of the provincial *kataphraktoi*, aristocrats serving in the army, members of some guards units and the imperial household. The construction of horse armour was probably somewhat varied; including bardings composed of metal or rawhide lamellae, or soft armour of quilted or felted textile. The historian John Birkenmeier

has stated: "The Byzantines, like their Hungarian opponents, relied on mailed lancers astride armored horses for their first charge."^[55]

Equipment: Artillery

The Komnenian army had a formidable artillery arm which was particularly feared by its eastern enemies. Stone-firing and bolt-firing machines were used both for attacking enemy fortresses and fortified cities and for the defence of their Byzantine equivalents. In contemporary accounts the most conspicuous engines of war were stone-throwing trebuchets, often termed *helepolis* (city-takers); both the man-powered and the more powerful and accurate counterweight trebuchets were known to the Byzantines.^[56] The development of the trebuchet, the largest of which could batter down contemporary defensive walls, was attributed to the Byzantines by some western writers.^[57] Additionally, the Byzantines also used long range, anti-personnel, bolt firing machines such as the 'great crossbow,' which was often mounted on a mobile chassis, and the 'skein-bow' or 'espringal' which was a torsion device using twisted skeins of silk or sinew to power two bow-arms.^[58] The artillerists of the Byzantine army were accorded high status, being described as "illustrious men." The emperor John II and the generals Stephanos and Andronikos Kontostephanos, both leading commanders with the rank of *megas doux*, are recorded personally operating siege engines.^[59]



Troop types

The Byzantine Empire was a highly developed society with a long military history and could recruit soldiers from various peoples, both within and beyond its borders; as a result of these factors a wide variety of troop types were to be found in its army.

Infantry

With the notable exception of the Varangians, the Byzantine infantry of the Komnenian period are poorly described in the sources. The emperors and aristocracy, who form the primary subjects of contemporary historians, were associated with the high-status heavy cavalry and as a result the infantry received little mention.^[60]

Varangians

The Varangian Guard were the elite of the infantry. In the field they operated as heavy infantry, well armoured and protected by long shields, armed with spears and their distinctive two-handed Danish axes.^[61]

Unlike other Byzantine heavy infantry their battlefield employment appears to have been essentially offensive in character. In both of the battles in which they are recorded as playing a prominent role they are described as making aggressive attacks. At Dyrrhachion they defeated a Norman cavalry charge but then their counterattack was pushed too far and, finding themselves unsupported, they were broken.^[62] At Beroia the Varangians were more successful, with John II commanding them

personally, they assaulted the Pecheneg wagon laager and cut their way into it, achieving a very complete victory.^[63]

It is likely, given their elite status and their constant attendance on the emperor, that the Varangians were mounted on the march though they usually fought on foot.^[64] It has been estimated that throughout Alexios I's reign, some 4,000–5,000 Varangians in total joined the Byzantine army.^[65] Before he set out to relieve Dyrrhachion in 1081, the emperor left 300 Varangians to guard Constantinople.^[66] After the defeat, Alexios left 500 Varangians to garrison Kastoria in an unsuccessful attempt to halt the Norman advance.^[67] At Dyrrhachion there were 1,400 Varangians while at Beroia, only 480–540 were present.^[68] This suggests that emperors usually only brought around 500 Varangians for personal protection on campaigns, unless they needed a particularly strong force of infantry.^[69] A garrison of Varangians was also stationed in the city of Paphos in Cyprus during the Komnenian period, until the island's conquest by King Richard I.^[70]



Varangian Guardsmen, with prominently displayed Danish axes, arranged around a Byzantine palace. Note the sub-conical helmets of both composite and single-piece skull construction, with attached neck defences and the use of both round and kite-shaped shields

Native heavy infantry

Heavy infantry are almost invisible in the contemporary sources. In the Macedonian period a heavy infantryman was described as a *skoutatos* (shieldbearer) or *hoplites*. These terms are not mentioned in 12th century sources; Choniates used the terms *kontophoros* and *lonchephoros* (spearbearer/spearman). Choniates' usage was, however, literary and may not accurately represent contemporary technical terminology. Byzantine heavy infantry were armed with a long spear (*kontos* or *kontarion*) but it is possible that a minority may have been armed with the menavlion polearm. They carried large shields, and were given as much armour as was available. Those in the front rank, at least, might be expected to have metal armour, perhaps even a *klivanion*.^[71] The role of such infantrymen, drawn up in serried ranks, was largely defensive. They constituted a bulwark which could resist enemy heavy cavalry charges, and formed a movable battlefield base from which the cavalry and other more mobile troops could mount attacks, and behind which they could rally.^[72]

Peltasts

The type of infantryman called a peltast (*peltastēs*) is far more heavily referenced in contemporary sources than the “spearman”. Although the peltasts of Antiquity were light skirmish infantry armed with javelins, it would be unsafe to assume that the troops given this name in the Komnenian period were identical in function; indeed, Byzantine peltasts were sometimes described as “assault troops”.^[73] Komnenian peltasts appear to have been relatively lightly equipped soldiers capable of great battlefield mobility, who could skirmish but who were equally capable of close combat.^[74] Their arms may have included a shorter version of the *kontarion* spear than that employed by the heavy infantry.^[75] At Dyrrachion, for example, a large force of peltasts achieved the feat of driving off Norman cavalry.^[76] Peltasts were sometimes employed in a mutually supportive association with heavy cavalry.^[77]

Light infantry

The true skirmish infantry, usually entirely unarmoured, of the Byzantine army were the *psiloi*. This term included foot archers, javelineers and slingers, though archers were sometimes differentiated from the others in descriptions. The *psiloi* were clearly regarded as being quite separate from the peltasts.^[76] Such troops usually carried a small buckler for protection and would have had an auxiliary weapon, a sword or light axe, for use in a close combat situation.^[75] These missile troops could be deployed in open battle behind the protective ranks of the heavy infantry, or thrown forward to skirmish.^[78] The light troops were especially effective when deployed in ambush, as at the Battle of Hyelion and Leimocheir in 1177.

Cavalry

The earlier Byzantine heavy cavalryman, who combined the use of a bow with a lance for close combat, seems to have disappeared before the Komnenian age. The typical heavy cavalryman of the Komnenian army was a dedicated lancer, though armoured horse-archers continued to be employed.

Heavy cavalry

The heavy cavalry were the social and military elite of the whole army and were considered to be the pre-eminent battle winners. The charge of the lancers, and the subsequent melee, was often the decisive event in battle.^[79] The lance-armed heavy cavalry of the Komnenian army were of two origins, firstly 'Latin knights', and secondly native *kataphraktoi*.

Latin knights

Latin heavy cavalry was recruited from the warriors and knights of Italy, France, The Low Countries, Germany and the Crusader States. The Byzantines considered the French to be more formidable mounted warriors than the Germans.^[80] Some Latin cavalymen formed part of the regular soldiery of the empire and were supported by pay from the imperial treasury, or by pronioia grants, and were organised into formal regiments. Regular Latin 'knightly' heavy cavalry were part of the guard, with individual Latins or those of Western descent to be found in the imperial household, others were grouped into a formation later known as the *latinikon*. Alternatively, bands of mercenary knights were often hired for the duration of a particular campaign. The charge of the western knight was held in considerable awe by the Byzantines; Anna Komnene stated that "A mounted Kelt [an archaism for a Norman or Frank] is irresistible; he would bore his way through the walls of Babylon."^[81] The Latins' equipment and tactics were identical to those of their regions of origin; though the appearance and equipment of such troops must have become progressively more Byzantine the longer they were in the emperor's employ. Some Latin soldiers, for example the Norman Roger son of Dagobert, became thoroughly integrated into Byzantine society. The descendants of such men, including the general Alexios Petraliphas and the naval commander Constantine Frangopoulos ("son-of-a-Frank"), often remained in military employ.^[82] The son of the Norman knight Roger son of Dagobert, John Rogerios Dalassenos, married a daughter of John II, was made caesar and even made an unsuccessful bid for the imperial throne.

Kataphraktoi

The native *kataphraktoi* were to be found in the imperial *oikos*, some imperial guards units and the personal guards of generals, but the largest numbers were found within the provincial *tagmata*. The level of military effectiveness, especially the quality of the armour and mount, of the individual provincial *kataphraktos* probably varied considerably, as both John II and Manuel I are recorded as employing formations of “picked lancers” who were taken from their parent units and combined. This approach may have been adopted in order to re-create the concentration of very effective heavy cavalry represented by the ‘imperial tagmata’ of former times.^[83] The *kataphraktoi* were the most heavily armoured type of Byzantine soldier and a wealthy *kataphraktos* could be very well armoured indeed. The Alexiad relates that when the emperor Alexios was simultaneously thrust at from both flanks by lance wielding Norman knights his armour was so effective that he suffered no serious injury.^[84]

In the reign of Alexios I the Byzantine *kataphraktoi* proved to be unable to withstand the charge of Norman knights, and Alexios, in his later campaigns, was forced to use stratagems which were aimed at avoiding the exposure of his heavy cavalry to such a charge.^[85]

Contemporary Byzantine armour was probably more effective than that of Western Europe therefore reasons other than a deficit in armour protection must be sought for the poor performance of the Byzantine cavalry. It is probable that the Byzantine heavy cavalry traditionally made charges at relatively slow speed, certainly the deep wedge formations described in Nikephoros Phokas’ day would have been impossible to deploy at anything faster than a round trot. In the course of the late 11th century the Normans, and other Westerners, seem to have evolved a disciplined charge at high speed which developed great impetus, and it is this which outclassed the Byzantines.^[86] The role of the couched lance technique, and the connected development of the high-cantled war saddle, in this process is obscure but may have had some influence.

There is evidence of a relative lack of quality warhorses in the Byzantine cavalry.^[87] The Byzantines may have suffered considerable disruption to access to Cappadocia and Northern Syria, traditional sources of good quality cavalry mounts, in the wake of the fall of Anatolia to the Turks. However, by the reign of Manuel I the Byzantine *kataphraktos* was the equal of his Western counterpart.^[88] Although Manuel was credited by the historian Kinnamos with introducing Latin ‘knightly’ equipment and techniques to his native cavalry, it is likely that the process was far more gradual and began in the reign of Alexios.^[89] Manuel’s enthusiastic adoption of the western pastime of jousting probably had beneficial effects on the proficiency of his heavy cavalry. The *kataphraktos* was famed for his use of a fearsome iron mace in melee combat.^[90]



Byzantine soldiers of the 14th century. The general appearance of the troops depicted is equally applicable to the Komnenian period (note the *kataphraktoi* in the lower register, particularly the one with face-covering mail).

Koursores

A cavalryman termed a *koursōr* (pl. *koursores*) is described in 11th century and earlier military writings. The name derives from the Latin term *cursarius* meaning 'raider' (from *cursus*: course, line of advance, running, speed, zeal) and is believed to be the etymological root of term hussar, used for a later cavalry type. The *koursōr* had a defined tactical role but may or may not have been an officially defined

cavalry type. *Koursores* were mobile close-combat cavalry and may be considered as being drawn from the more lightly equipped *kataphraktoi*. The *koursores* were primarily intended to engage enemy cavalry and were usually placed on the flanks of the main battle line. Those on the left wing, termed *defensores*, were placed to defend that flank from enemy cavalry attack, whilst the cavalry placed on the right wing, termed *prokoursatores*, were intended to attack the enemy's flank. Cavalry on detached duty, such as scouting or screening the main army, were also called *prokoursatores*. It is thought that this type of cavalry were armed identically to the heavy *kataphraktoi* but were armoured more lightly, and were mounted on lighter, swifter horses. Being relatively lightly equipped they were more suited to the pursuit of fleeing enemies than the heavyweight *kataphraktoi*.^[91] In the Komnenian period, the more heavily equipped of the *kataphraktoi* were often segregated to create formations of "picked lancers," presumably the remainder, being more lightly equipped, provided the *koursores*. A type of cavalry, differentiated from both horse archers and those with the heaviest armour, is referred to by Kinnamos in 1147 as forming a sub-section of a Byzantine army array; they are described as "those who rode swift horses," it would appear that these were the *koursores*.^[92]



Mace-wielding Byzantine cavalry in pursuit – Skylitzes Chronicle

Light cavalry

The light cavalry of the Komnenian army consisted of horse-archers. There were two distinct forms of horse-archer: the lightly equipped skirmisher and the heavier, often armoured, bow-armed cavalryman who shot from disciplined ranks. The native Byzantine horse-archer was of the latter type. They shot arrows by command from, often static, ranks and offered a mobile concentration of missile fire on the battlefield.^[93] The native horse-archer had declined in numbers and importance by the Komnenian period, being largely replaced by soldiers of foreign origins.^[94] However, in 1191 Isaac Komnenos of Cyprus is recorded firing arrows at Richard I of England from horseback during the latter's conquest of Cyprus.^[95] This suggests that mounted archery remained a martial skill practised within the upper reaches of Byzantine aristocracy.



Magyar warrior of the 10th century. Typical of the appearance of light skirmish horse-archers of all periods.

Turks from the Seljuk and Danishmend realms of central and eastern Anatolia, and those Byzantinised Turks and Magyars settled within the Empire, such as the Vardariots, supplied the bulk of the heavy horse-archers of the Komnenian army. Towards the end of the period Alans were also supplying this type of cavalry. Such horse archers were often highly disciplined. The Byzantine horse-archers (termed *doryphoroi* – indicating guard status) at Sozopolis in 1120 performed a feigned flight manoeuvre, always demanding the greatest self-confidence and discipline, which led to the taking of the city from the Turks.^[96] Given that they were usually armoured, even if it was comparatively light armour, this type of horse-archer also had the capability to fight with melee weapons in close combat.

Skirmish horse-archers, usually unarmoured, were supplied by the Turkic Pechenegs, Cumans and Uzes of the steppes.^[97] These troops were ideal scouts and were adept at harassment tactics. They usually attacked as a swarm and were very difficult for a more heavily equipped enemy to bring into close combat. Light horse-archers were also effective as a screening force, preventing an enemy discerning the dispositions of other troops (for example at the Battle of Sirmium).

Development

Alexios I inherited an army which had been painstakingly reconstituted through the administrative efforts of the able eunuch Nikephoritzes. This army, though small due to the loss of territory and revenue, was in its nature similar to that of earlier Byzantine armies back as far as Nikephoros Phokas and beyond; indeed some units could trace their history back to Late Roman times. This rather traditional Byzantine army was destroyed by the Italo-Normans at Dyrrhakhion in 1081. In the aftermath of this disaster Alexios laid the foundations of a new military structure. He raised troops entirely by *ad hoc* means: raising the regiment of the *archontopouloi* from the sons of dead soldiers and even pressing heretic Paulicians from Philippopolis into the ranks. Most important is the prominent place in this new army of Alexios' extended family and their many connections, each aristocrat bringing to the field his armed retinue and retainers. Before campaigning against the Pechenegs in 1090 he is recorded as summoning "his kinsmen by birth or marriage and all the nobles enrolled in the army." From pure necessity an army based on a model derived ultimately from Classical Antiquity was transformed, like the empire as a whole, into a type of family business. At this point the army could be characterised as being a feudal host with a substantial mercenary element.^[98] Later in his reign, when the empire had recovered territory and its economic condition had



improved, the increased monetary revenue available allowed Alexios to impose a greater regularity on the army, with a higher proportion of troops raised directly by the state; however, the extended imperial family continued to play a very prominent role. This was the army that his successors inherited and further modified.

Under John II, a Macedonian division was maintained, and new native Byzantine troops were recruited from the provinces. As Byzantine Asia Minor began to prosper under John and Manuel, more soldiers were raised from the Asiatic provinces of Thrakesion, Neokastra, Paphlagonia and even Seleucia (in the south-east). Soldiers were also drawn from defeated peoples, such as the Pechenegs (cavalry archers), and Serbs, who were transplanted as military settlers to the region around Nicomedia. Native troops were organised into regular units and stationed in both the Asian and European provinces. Later Komnenian armies were also often reinforced by allied contingents from Antioch, Serbia and Hungary, yet even so they generally consisted of about two-thirds Byzantine troops to one-third foreigners. Units of archers, infantry and cavalry were grouped together so as to provide combined arms support to each other. John fought fewer pitched battles than either his father or son. His military strategy revolved around sieges and the taking and holding of fortified settlements.^[99]

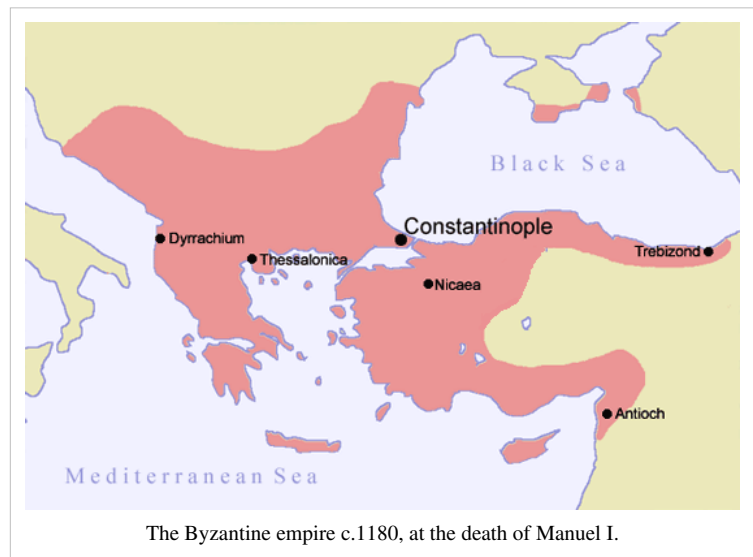
The emperor Manuel I was heavily influenced by Westerners (both of his empresses were Franks) and at the beginning of his reign he is reported to have re-equipped and retrained his native Byzantine heavy cavalry along Western lines.^[100] It is inferred that Manuel introduced the couched lance technique, the close order charge at speed and increased the use of heavier armour. Manuel personally took part in knightly tournaments in the Western fashion; his considerable prowess impressed Western observers. Manuel organised his army in the Myriokephalon campaign as a number of 'divisions' each of which could act as small independent army. It has been argued that it was this organisation which allowed the greater part of his army to survive the ambush inflicted on it by the Seljuk

Turks.^[101] Indeed it was a stock of Byzantine writing to contrast the order of the Byzantine battle array with the disorder of barbarian military dispositions.

Permanent military camps were established in the Balkans and in Anatolia, they are first mentioned during the reign of Alexios I (Kypsella and Lopadion), but as Lopadion is recorded as being newly fortified in the reign of John II it is the latter who seems to have fully realised the advantages of this type of permanent camp.^[102] The main Anatolian camp was at Lopadion on the Rhyndakos River near the Sea of Marmora, the European equivalent was at Kypsella in Thrace, others were at Sofia (Serdica) and at Pelagonia, west of Thessalonica. Manuel I rebuilt Dorylaion on the Anatolian plateau to serve the same function for his Myriokephalon campaign of 1175–76.^[103] These great military camps seem to have been an innovation of the Komnenian emperors, possibly as a more highly developed form of the earlier *aplekta* (military station along a major communication route), and may have played an important role in the improvement in the effectiveness of the Byzantine forces seen in the period. The camps were used for the training of troops and for the preparation of armies for the rigours of campaign; they also functioned as supply depots, transit stations for the movement of troops and concentration points for field armies.^[104]

Legacy

The Komnenian Byzantine army was a resilient and effective force, but it was over-reliant on the leadership of an able emperor. After the death of Manuel II in 1180, first a child-emperor, Alexios II, then a tyrant, Andronikos I, who attempted to break the power of the aristocracy who provided the leadership of the army, and finally the rule of the incompetents of the Angeloi dynasty allowed the centrifugal tendencies generated by the self-interests of the powerful aristocracy to fatally weaken the Empire and the army which served it. When Constantinople fell to the Fourth Crusade in 1204, the Byzantine successor



The Byzantine empire c.1180, at the death of Manuel I.

states established at Epirus, Trebizond and especially Nicaea based their military systems on the Komnenian army. The success of the Empire of Nicaea in particular in reconquering former Byzantine territories (including Constantinople) after 1204 may be seen as evidence of the strengths of the Komnenian army model. However, there is reason to restrict the term Komnenian army solely to the period of the rule of the Komnenian emperors; the Byzantine army after the recovery of Constantinople in 1261 was sufficiently distinct from its earlier form to deserve a separate identity as the Palaiologan army.

The Byzantine Empire enjoyed a major economic and cultural renaissance during the 12th century, the Komnenian army played a crucial part in providing the political and territorial stability which allowed this cultural flowering.

Timeline

- 1081 – Alexios I led an army of 20–25,000 men to attack the invading Normans, but was heavily defeated at the Battle of Dyrrhachium.^{[105][106]}
- 1091 – A massive invasion by the Pechenegs was defeated at the Battle of Levounion by an army of Byzantines with the assistance of 5,000 Vlach mercenaries, 500 Flemish knights, and supposedly 40,000 Cumans.^[107]
- 1092–1097 – John Doukas, the *meas doux*, led campaigns on both land and sea and was responsible for the re-establishment of firm Byzantine control over the Aegean, the islands of Crete and Cyprus and the western parts of Anatolia.^[108]
- 1107- 1108 - The Italo-Normans under Bohemund invaded the western Balkans. Alexios' response was cautious, he relied on defending mountain passes in order to keep the Norman army pent up on the Albanian coast. Using delaying tactics and not offering battle, while his navy cut all communications with Italy, Alexios starved and harassed the Normans into capitulation. Bohemund was forced to become a vassal of the emperor for his principality of Antioch, but was unable or unwilling to put this agreement into effect.^[109]
- 1117 the Battle of Philomelion consisted of series of clashes over a number of days between a Byzantine expeditionary army under Alexios I and the forces of the Sultanate of Rûm under Sultan Malik Shah; the Byzantine victory ensured a peace treaty advantageous to the Empire.^[110]
- 1119 - The Seljuks had pushed into the southwest of Anatolia cutting the land route to the Byzantine city of Attalia and the region of Cilicia. John II responded with a campaign which recaptured Laodicea and Sozopolis, restoring Byzantine control of the region and communications with Attalia.^[111]
- 1122 – At the Battle of Beroia, about 500 Varangians led by John II were instrumental in achieving a Byzantine victory by smashing through the Pecheneg defensive wagon laager.^[112]
- 1128 - An army led by John II inflicted a significant defeat on the Hungarians at the Battle of Haram on the River Danube.^[113]
- 1135 – After successfully capturing Kastamon, John II marched on to Gangra which capitulated and was garrisoned with 2,000 men.^{[114][115]}
- 1137-1138 - John II recovered control of Cilicia, enforced the vassalage of the crusader Principality of Antioch and campaigned against the Muslims of Northern Syria, unsuccessfully besieging the city of Shaizar.^[116]
- 1149 – Manuel I personally commanded 20–30,000 men at the siege of Corfu supported by a fleet of 50 galleys along with numerous small pirate galleys, horse transports, merchantmen, and light pirate skiffs.^{[117][118]}
- 1154 – An assassination attempt on the life of Emperor Manuel I was thwarted with the help of 300 Varangians.^[112]
- 1155–56 – The generals Michael Palaiologos and John Doukas were sent with 10 ships to invade Apulia.^[119] A number of towns, including Bari, and most of coastal Apulia were captured, however, the expedition ultimately failed, despite the reinforcements sent by the emperor because the Byzantine fleet of 14 ships was vastly outnumbered by the Norman fleet.^[120]
- 1165 – The Kingdom of Hungary was invaded by a Byzantine army and the city of Zeugminon was placed under siege. The commanding general, and future emperor, Andronikos Komnenos personally adjusted the 4 *helepoleis* (counterweight trebuchets) that were used to bombard the city.^[121]
- 1166 – Two Byzantine armies were dispatched in a vast pincer movement to ravage the Hungarian province of Transylvania. One army crossed the Walachian Plain and entered Hungary through the Transylvanian Alps (Southern Carpathians), whilst the other army made a wide circuit to the south-western Russian principality of Galicia and, with Galician aid, crossed the Carpathian Mountains.^[122]
- 1167 – With an army of 15,000 men, general Andronikos Kontostephanos scored a decisive victory over the Hungarians at the Battle of Sirmium.^[123]
- 1169 – A Byzantine fleet of about 150 galleys, 20 large transports and 60 horse transports under *meas doux* Andronikos Kontostephanos was sent to invade Egypt.^[124]

- 1175 – The Emperor dispatched Alexius Petraliphas with 6,000 men to capture Gangra and Ancyra, however the expedition failed due to heavy resistance from the Turks.^[125]
- 1176 – In his last attempt to capture Iconium, Manuel I led a large army of 25–40,000 men which was supported by 3,000 wagons carrying supplies and siege engines.^{[7][126]} The campaign ultimately ended in failure after suffering defeat at the Battle of Myriocephalon.
- 1177 – Andronikos Kontostephanos led a fleet of 150 ships in another attempt to conquer Egypt, the force returned home after landing at Acre. The refusal of Count Philip of Flanders to co-operate with the Byzantine force led to the abandonment of the campaign.^[127] A large raiding force of Seljuk Turks was destroyed by a Byzantine army commanded by John Vatatzes in an ambush in Western Anatolia (Battle of Hyelion and Leimocheir).^[128]
- 1187 – After a successful campaign against the Bulgarians and Vlachs, General Alexios Branas rebelled. Conrad of Montferrat assembled 250 knights and 500 infantry from the Latin population of Constantinople to join Emperor Isaac II Angelos's army of 1,000 men. Together they defeated and killed the rebel commander outside the city walls.^[129] Later in the year, the Emperor returned to Bulgaria with 2,000 men to quell the rebellion.^[130]
- 1189 – On the orders of Emperor Isaac II, the *protostrator* Manuel Kamytzes (with 2,000 cavalry) attempted to ambush part of Frederick I Barbarossa's army near Philippopolis but was defeated.^[131]
- 1198–1203 – Successive revolts by semi-autonomous magnates and provincial governors. Those of Dobromir Chrysos, Ivanko and John Sypridonakes in Macedonia and Thrace are suppressed, those of Leo Chamaretos and Leo Sgouros in Greece succeed in establishing their authority.
- 1204 – When the Fourth Crusade reached Constantinople, the city was defended by a garrison of 10,000 men and the Imperial Guard of 5,000 Varangians.^{[11][9]}

Notable generals

Under Alexios I:

- Manuel Boutoumites
- Nikephoros Bryennios the Younger
- John Doukas
- Nikephoros Melissenos
- George Palaiologos
- Tatikios

Under John II:

- John Axouch

Under Manuel I:

- Alexios Axouch
- John Doukas
- Isaac Komnenos
- Andronikos Kontostephanos
- John Kontostephanos
- Andronikos Lampardas
- Michael Palaiologos
- John Vatatzes

Under Andronikos I:

- Alexios Branas

Notes

- [1] Treadgold, p. 236.
- [2] See Birkenmeier for the use of this term.
- [3] Angold, p. 127
- [4] Treadgold, p. 680.
- [5] Laiou p. 162.
- [6] Birkenmeier, p. 151.
- [7] Birkenmeier, p. 180.
- [8] Birkenmeier, p. 197.
- [9] Phillips. *The Fourth Crusade*, p. 159.
- [10] S. Blondal, *The Varangians of Byzantium*, 163
- [11] D. Queller, *The Fourth Crusade The Conquest of Constantinople*, 185
- [12] Heath, Ian; McBride, Angus (1995). *Byzantine Armies: AD 1118–1461*. pp. 12–19.
- [13] Heath, p. 13.
- [14] Haldon (1999), pp. 115–117.
- [15] Later references to *archontopouloi* do not make it clear whether the men given this title were part of a fighting regiment or merely young aristocrats attached to the emperor's household. The Byzantine Army had a long history of elite formations raised as fighting regiments declining over time into merely ornamental appendages of the imperial court (the *Scholae Palatinae* in Justinian the Great's time was manned by unwarlike rich civilians who had bought positions in the regiment as a social perk). See Bartusis, p. 206.
- [16] The *hetaireia* are mentioned by Kinnamos as being present at the Battle of Sirmium in 1167 and a *megas hetaireiarchēs* named John Doukas is recorded (Magdalino, p. 344).
- [17] W. Treadgold, *A History of the Byzantine State and Society*, 617
- [18] Magdalino, p. 231, Haldon (1999), p. 120. Though probably in origin horse archers of Magyar ancestry by the latter part of the reign of Manuel II the Vardariots are described as being composed of Byzantines of good birth, and therefore almost certainly *kataphraktoi*.
- [19] The distinction between the *oikeioi* and the *vestiaritai* is not clear, though the *vestiaritai* appear to have been considered as composing part of the emperor's household. One function of the *vestiaritai* was guarding the public and private imperial treasuries (Magdalino, p. 231).
- [20] Heath, p. 14. Exceptionally, the *megas doux* Andronikos Kontostephanos is described by the historian Kinnamos as being surrounded by those troops usually attendant on the emperor, when he commanded the Byzantine army at the Battle of Sirmium.
- [21] Angold, p. 213. Lampardas was *sebastos*, *oikeios vestiaritēs* and *chartoularios*, Magdalino p. 505.
- [22] Angold, p. 128.
- [23] Haldon (1999), p. 118.
- [24] Choniates, p. 102
- [25] Kinnamos, 71, 11. 13–15. "... some Romans from the register (*katalogon*) of infantry."
- [26] Birkenmeier, p. 162
- [27] Heath, Ian: *Armies and Enemies of the Crusades 1096–1291*, Wargames Research Group. (1978), p. 28. The sources unequivocally give names to the foreign *tagmata* only in the Nicaean period, but references to formations of troops, often translated as 'divisions,' from these ethnic groups abound in the Komnenian sources.
- [28] W. Treadgold, *A History of the Byzantine State and Society*, 614
- [29] I. Heath, *Byzantine Armies: AD 1118–1461*, 33
- [30] Angold, pp. 112 and 157
- [31] Angold, pp. 213–214
- [32] Brand p. 5.
- [33] Dawson, Timothy: *Byzantine Infantryman*, Oxford (2007), p. 25.
- [34] Dawson, Timothy: *Byzantine Cavalryman*, Oxford (2009), p. 36.
- [35] Komnene, Alexiad, Anna Comnena, trans E. R. A. Sewter, pp. 42–43.
- [36] Nicolle, David: *Medieval Warfare Source Book*, Vol. II London (1996), pp. 75–76, mace use is also mentioned by Kinnamos.
- [37] Nicolle, David: *Medieval Warfare Source Book*, Vol. II London (1996), p. 74.
- [38] Dawson, Timothy: *Byzantine Infantryman*, Oxford (2007), p. 23.
- [39] Dawson, Timothy: *Byzantine Infantryman*, Oxford (2007), p. 22
- [40] Dawson, Timothy: *Kresmasmata, Kabbadion, Klibanion: Some Aspects of Middle Byzantine Military Equipment Reconsidered* (<http://www.levantia.com.au/military/KKK.html>), *Byzantine and Modern Greek Studies*, 22 (1998), pp. 38–50.
- [41] The general Andronikos Kontostephanos is described as donning his mailshirt and then "the rest of his armour" just before the Battle of Sirmium, a good indicator that the kivanion was indeed worn over mail. Choniates, p. 87.
- [42] Dawson, Timothy: *Byzantine Infantryman*, Oxford (2007), p. 23 (illustration).
- [43] Nicolle, David: *Medieval Warfare Source Book*, Vol. II London (1996), p. 78.
- [44] Dawson, Timothy: *Byzantine Infantryman*, Oxford (2007), p. 23..
- [45] Oman, Charles: *The Art of War in the Middle Ages*, Vol. I: 378–1278AD, London (1924). pp. (illustration facing) 190, and 191.
- [46] Dawson, Timothy: *Byzantine Infantryman*, Oxford (2007), pp. 20–21.

- [47] Dawson, Timothy: *Byzantine Infantryman*, Oxford (2007), p. 61.
- [48] D'Amato, p. 11
- [49] D'Amato, p. 33
- [50] D'Amato, p. 47
- [51] Nicolle, David: *Medieval Warfare Source Book*, Vol. II London (1996), p. 163..
- [52] Dawson, Timothy: *Byzantine Infantryman*, Oxford (2007), pp. 20–21
- [53] For example: Komnene, Alexiad, p. 42. "... Alexius covered his face, drawing down the vizor fastened to the rim of his helmet..." Both Choniates and Kinnamos describe the Emperor Manuel I having armour covering his face.
- [54] Choniates, p. 88
- [55] Birkenmeier, p. 121
- [56] Birkenmeier pp.188–189
- [57] Nicolle, p.173
- [58] Nicolle, pp. 173–174, the espringal is depicted, in the form of a fairly detailed diagram, in an 11th century Byzantine manuscript
- [59] Birkenmeier pp. 189–191
- [60] Birkenmeier, p. 200.
- [61] Birkenmeier, pp. 96, 232.
- [62] Birkenmeier, pp. 62–68.
- [63] Choniates pp. 10–11, Birkenmeier, p. 90.
- [64] Anna Komnene records that the Emperor Alexios I ordered the Varangians to dismount and march at the head of the army, in the opening stages of the Battle of Dyrrachion – Alexiad, IV, 6.
- [65] S. Blondal, *The Varangians of Byzantium*, 140
- [66] S. Blondal, *The Varangians of Byzantium*, 123
- [67] S. Blondal, *The Varangians of Byzantium*, 127
- [68] R. D'Amato, p. 16
- [69] S. Blondal, *The Varangians of Byzantium*, 181
- [70] S. Blondal, *The Varangians of Byzantium*, 137
- [71] Dawson (2007), p. 63.
- [72] Haldon (1999), p. 224.
- [73] Birkenmeier, p.123.
- [74] Birkenmeier, p.241.
- [75] Dawson, p. 59.
- [76] Birkenmeier, p. 64.
- [77] Birkenmeier, p. 83.
- [78] Dawson (2007), pp. 53–54.
- [79] Birkenmeier, pp. 215–216.
- [80] Birkenmeier, p. 112
- [81] Anna Komnene, p. 416
- [82] For Frangopoulos see Choniates, p. 290.
- [83] Birkenmeier, pp. 121, 160.
- [84] Komnene, Alexiad, pp. 149–150. The circumstances of the passage make it clear that the incident was in a melee context, no armour would have been proof to a lance propelled by the impetus of a horse charging at speed. Whereas a Western knight would have had merely a padded undergarment and a single layer of mail as protection a well armoured Byzantine could have had up to four layers of protection to the torso; that is: first a padded *kavadion*, then a mail shirt, over this a *klivanion* and then a further layer of quilted protection, the *epilorikion*, outside all.
- [85] Birkenmeier, pp. 60–70.
- [86] Haldon (2000) pp. 111–112. Western knights usually charged in a shallow formation, usually of two ranks, a formation later termed *en haie* (like a hedge) in French. Byzantine sources, such as Choniates, often refer to heavy cavalry formations as "phalanxes"; this tends to suggest a deeper formation. The deeper the formation the less the speed that can be achieved in a charge.
- [87] Birkenmeier, pp. 61–62 (footnote).
- [88] Birkenmeier p. 240.
- [89] Kinnamos, 112, 125, 156–157, 273–274. Kinnamos credits Manuel with the adoption of the long "kite" shield in place of round shields, this is manifestly untrue as Byzantine illustrations of kite shields are found much earlier than Manuel's reign.
- [90] Choniates, p. 89.
- [91] Dawson, Timothy: *Byzantine Cavalryman*, Oxford (2009), pp. 34–36, 53, 54
- [92] Kinnamos, p. 65
- [93] Nicolle, p. 75.
- [94] Haldon (1999) p. 216–217.
- [95] Heath, p. 24
- [96] Birkenmeier, p. 89.
- [97] Heath (1995), pp. 23, 33.

- [98] Angold, p. 127.
- [99] Birkenmeier, p. 86
- [100] Kinnamos, p. 99.
- [101] Birkenmeier, p.132
- [102] Kinnamos, p. 38
- [103] Birkenmeier, p. 127
- [104] Choniates pp. 19–21, for John's use of Lopadion as a troop assembly point and as a military base for campaigning from.
- [105] Haldon, *The Byzantine Wars*, 134
- [106] Birkenmeier, *The Development of the Komnenian Army: 1081–1180*, 62
- [107] Birkenmeier, p. 76.
- [108] Angold (1997), p. 150
- [109] Angold, pp. 142–143.
- [110] Birkenmeier, p.78–80
- [111] Norwich, p. 68
- [112] R. D'Amato, *The Varangian Guard 988–1453*, 5
- [113] Kinnamos, p. 18
- [114] Norwich 1995, p. 74
- [115] Birkenmeier p. 205.
- [116] Angold, p. 156
- [117] Norwich 1995, p. 98
- [118] N. Choniates, *O City of Byzantium, Annals of Niketas Choniates*, 45
- [119] Brand, p. 108.
- [120] Brand, p. 124.
- [121] Dennis p. 113.
- [122] Angold, p. 177.
- [123] Birkenmeier p. 241.
- [124] Phillips 2005, p. 158
- [125] Brand p. 219.
- [126] Haldon, p. 1980.
- [127] Harris p. 109
- [128] Birkenmeier pp. 134–135
- [129] N. Choniates, *O City of Byzantium, Annals of Niketas Choniates*, 211
- [130] N. Choniates, *O City of Byzantium, Annals of Niketas Choniates*, 218
- [131] N. Choniates, *O City of Byzantium, Annals of Niketas Choniates*, 224

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External links

Reconstructions of Byzantine armour and weapons: http://livinghistory.co.uk/homepages/Levantia_light/militarycontents.html

Palaiologan Byzantine army

Byzantine army of the Palaiologan period	
Participant in the Byzantine-Ottoman Wars, the Byzantine-Bulgarian Wars and other conflicts	
 <p>Imperial flag (<i>basilikon phlamoulon</i>) and dynastic insignia of the Byzantine Empire under the Palaiologoi</p>	
Active	1261 - 1453 AD
Leaders	Byzantine Emperor
Headquarters	Constantinople
Area of operations	Bithynia, western Anatolia, Thrace, Morea, Macedonia, Epirus, Crimea.
Strength	20,000 troops (height). ^[1]
Part of	Byzantine Empire
Originated as	Nicaean army
Became	Some elements absorbed into the Ottoman army, others became bandits.
Allies	Golden Horde, Ilkhanate, Umur Beg, Catalan Company, Genoa
Opponents	Ottoman Sultanate, Serbian Empire, Bulgaria, Sultanate of Rum, Achaea, Duchy of Athens, Kingdom of Sicily, Empire of Trebizond, Despotate of Epiros, Catalan Company.
Battles/wars	Bapheus, Nicaea, Pelekanon, Nicomedia, Gallipoli, Adrianople, Philadelphia, Constantinople, Thessalonika, Constantinople

The **Palaiologan army** refers to the military forces of the Byzantine Empire from the late thirteenth century to its final collapse in the mid fifteenth century, under the House of the Palaiologoi. The army was a direct continuation of the forces of the Nicaean army, which itself was a fractured component of the formidable Komnenian army. Under the first Palaiologan emperor, Michael VIII, the army's role took an increasingly offensive role whilst the naval forces of the Empire, weakened since the days of Andronikos I Komnenus was boosted to included thousands of skilled sailors and some 80 ships. Due to the lack of land to support the army, the Empire required the use of large numbers of mercenaries.

After Andronikos II took to the throne, the army fell apart and the Byzantines suffered regular defeats at the hands of their eastern opponents, although they would continue to enjoy success against the crusader territories in Greece. By c. 1350 the Empire's inefficient fiscal organization and incompetent central government made raising troops and the supplies to maintain them a near-impossible task, and the Empire came to rely upon troops provided by Serbs, Bulgarians, Venetians, Latins, Genoans and Turks to fight the civil wars that lasted for the greater part of the 14th century, with the latter foe being the most successful in establishing a foothold in Thrace. By the time the civil war had ended, the Turks had cut off Constantinople, the capital of the Byzantine Empire from the surrounding land and in 1453 the last decisive battle was fought by the Palaiologan army when the Capital was stormed on 29 May.

Structure of the army

Size and organization

The Byzantine army continued to use the same military terms with regards to numbers of troops and officers as did the Komnenian army.^[2] However there were fewer territories to raise troops from. In Anatolia, the locals support for the Ottoman conquerors grew daily whilst in Greece the ravaging by the Crusaders states, Serbia, Bulgaria and earlier on by the Angevin Empire ruined the region - most of Byzantium's source of Greek man power. After 1261, the central army consisted 6,000 men, while the number of total field troops never exceeded 10,000 men.^{[3][4]} The total number of troops under Michael VIII was about 20,000 men; the mobile force numbered 15,000 men, while the town garrisons totaled 5,000 men.^[1] However, under Andronicus II the more professional elements of the army was demobilized in favor of poorly trained and cheaper militia soldiers. The Emperor decreased the entire army's strength to 4,000 men by 1320, and a year later the Empire's standing army dropped to only 3,000 men.^{[4][5]} Even though the Empire had shrunk considerably by the time of Andronicus III's reign, he succeeded in assembling an army of 4,000 men for his campaign against the Ottomans.^[6] By 1453, the Byzantine army had fallen to a regular garrison of 1,500 men in Constantinople.^[7] With a supreme effort, Constantine XI succeeded in assembling a garrison of 7,000 men (included 2,000 foreigners) to defend the city against the Ottoman army.^[8]

Byzantine troops continued to consist of cavalry, infantry and archers. Since Trebizond had broken away, Cumans and Turks were used for cavalry and missile units. In the Palaiologan era, the main term for a standing regiment was the *allagion*. Palace and imperial guard units included the Varangian Guard, the obscure *Paramonai* and the *Vardariotai*.

Mercenaries

After Constantinople was retaken, Michael VIII army's continuous campaigning in Greece ensured that the Nicaean army, an offshoot of the expensive but effective Komnenian army remained in play. Under Andronicus II however, the army was reduced to destructively low numbers - mercenary troops were disbanded to save money^[9] and to lower taxes upon the disgruntled population. Instead the use of poorly equipped and ill-disciplined militia soldiers saw the replacement of the vitally important expert soldiers. The results were obvious; Byzantine losses in Asia Minor occurred primarily under Andronicus II.

In 1302 the center of military expenditure shifted back again towards mercenaries, notably the Catalan Company, but after their leader was murdered the company returned to Thrace and Greece where they overthrew the Crusader Duchy of Athens and seriously undermined Greek rule so that on both sides of the Bosphorus the Empire suffered. Even so, mercenaries continued to be used after Andronicus II's reign. Ironically Andronicus' successor's policy of using many foreign fighters worsened Byzantium's fortunes in the same way that Andronicus had done so with their disbandment. The use of Serbs, Bulgarians and Turks of Aydin and of the Ottomans opened Byzantium up to more foreign incursions. The deployment of up to 20,000 Turkish soldiers from the Ottoman realm to assist her nominal Greek ally only eased future conquests of the area.^[10]

Since Byzantium became increasingly incapable in raising a "loyal" Greek army, foreigners such as the Knights of Rhodes, Venetians, Genoans and Italians were added to Byzantium's fighting forces. Since the Imperial treasury was bankrupt after c 1350, these foreign fighters fought only for political reasons and often in civil wars, rather than to strengthen Byzantium's position.



Catalan troops. Some 6,500 men went to fight for the *Basileus* in 1303

Strategy & Tactics

The Byzantine Empire's main strategy aimed to make maximum use of an often outnumbered army. The key behind this approach was the use of border fortifications that would impede an invading force long enough for the main Imperial army to march in to its relief.^[2] One example of this occurred on May 1281 when Tarchaneiotes was sent by Michael VIII to relieve the fort town of Berat, and succeeded in driving Charles of the House of the Angevins away. Nonetheless, this strategy was not in touch with the military situation of the day - forts and castles became increasingly less useful for defense and more so as a residence. In particular were Crusader forts, Byzantium's major opponent in the west. These forts played little role in helping the Crusaders hold on to their territories and the battle was often decided on an open field; the castle of Thebes was lost twice, first by Crusaders and then by the Catalans in 20 years without a siege.^[11] What may have contributed to the relegation of castles in war was the fact that the Crusaders in Greece were desperately short of manpower^[12] and therefore the destruction of their army on the field left their castles defenceless - as was seen in Constantinople in 1261, where only a skeleton force was left to defend the Capital due to the Latin Empire's lack of man power.

Reconnaissance and ambushing enemy columns remained a favorite Byzantine tactic. At the Battle of Pelekanos, the Ottomans were successfully spied upon by the opposing Byzantine troops. Prudence remained an admirable virtue (as can be seen by John Cantacuzenus' advice to withdraw from Pelekanos).

More serious shortcomings in Byzantine strategy occurred in Asia Minor, particularly against the Ottoman Turks who would raid Byzantine lands and then retreat before any serious resistance could counter. The local population endured heavy burdens in providing officials with food and matériel,^[13] but such burdens were too difficult to take as the ravages of warfare were brought home by the Ottomans and their *ghazi* followers. At Magnesia, Nicomedia and Pelekanos the Byzantines suffered serious defeats at the hands of the Turks; since there were few troops to spare, the Empire was brought one step closer to peril with each defeat.

After the Imperial army suffered defeat in Asia Minor, Andronikos III saw Anatolia as a lost cause and began reorganizing the Byzantine fleet;^[14] as a result the Aegean remained an effective defense against Turkish incursions until Gallipoli was at last captured by the Turks in 1354. From then on, the Byzantine military engaged in small scale warfare against her weak Crusader opponents, mixing in diplomacy and subterfuge, often exploiting civil conflict amongst their Ottoman opponents. In the Peloponnese, territory continued to be re-conquered by the Byzantines against the weak crusaders until the mid 15th century, when the Byzantine enclave in Morea was finally conquered by the Ottomans.

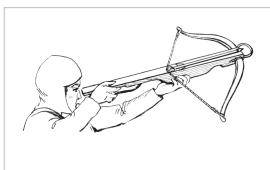


Hulagu, founder of The Ilkhanates; Byzantium's ally in the early 14th century.

Alliance with the Mongols

Michael VIII Palaiologos was anxious to establish an alliance with the Mongols, who themselves were highly favourable to Christianity, many of them being Nestorian Christians. He signed a treaty in 1263 with the Mongol Khan of the Golden Horde, and he married two of his daughters (conceived through a mistress, a Diplovatatzina) to Mongol kings: Euphrosyne Palaiologina, who married Nogai Khan of the Golden Horde, and Maria Palaiologina, who married Abaqa Khan of Ilkhanid Persia. In 1282, Nogai Khan provided Michael VIII with 4,000 Mongols whom he sent against Thessaly.^[15] His alliance with the Mongols would also benefit his son Andronicus II; in 1305 Ilkhan Oljeitu promised Andronicus II 40,000 men, and in 1308 dispatched 30,000 men to recover many Byzantine towns in Bithynia.^[16] However, the Ottomans eventually defeated the Ilkhanates. After their defeat, the Byzantines were unable to extract any more assistance from the Ilkhanates, who began to adopt Islam and were facing threats to their rule throughout Iran.

Weapons



Weapons amongst the Byzantine army varied greatly, as did the composition of the army. Shields and spears were as always the most common weapon. However, by the 1300s, the crossbow emerged as an important anti-personnel weapon.^[11] This was in line with western European military thinking, which saw the rise in importance of the Genoese crossbow and the longbow in England in the 14th and early 15th centuries.

Given the late-imperial dependence on western mercenaries, this is unsurprising. As the Empire shrunk, its resources and ability to fight declined; when Constantinople was besieged in 1453, its walls were unable to bear mounting cannon (the recoil of the guns would shake the rubble-core Theodosian walls down) and the Empire was unable to use this piece of technology.

Fortifications & siege warfare

Byzantine military strategy relied heavily on fortifying towns and cities. Walls consisted of stonework with layers of thick bricks in between, perhaps allowing for absorption of an attack.^[11] Later, as artillery became increasingly more effective, sloped walls came into play. The walls would be augmented by towers, evenly spaced out and running the length of the walls. The walled towers were designed to cover the entire town.



Ruined fortifications of Theodosia, in the Crimea. Occupied by Genoa before mid-14th century, some of the existing fortifications were later modified.

Supplying towns and forts became Byzantium's worst problem and, though the Turks initially lacked the expertise to take walled towns, they could not be defeated on land nor their blockade broken. Cities such as Nicaea and Nicomedia fell after a few years or more. Even so, this was a longer period of time than the Crusaders in the Levant were able to hold out where impressive forts such as Krak des Chevaliers surrendered relatively quickly. Worse still were the Crusader forts in the Aegean, which often surrendered to the Byzantines and the Turks without a fight.^[11]

The Byzantine army regained an increasingly offensive role against the crusaders in the mid to late 13th century but many fortifications regained by the Byzantines fell out of use;^[17] a lack of manpower and multiple pressing fronts relegated these castles to abandonment. Some of the castles captured in Greece were used to control the local hostile Greek, Albanian, Vlach or other tribal peoples that opposed Frankish rule and since the Byzantines were both Greek and Orthodox, the threat that the Crusaders had to contend with existed on a lesser scale for the Byzantines, giving them another reason not to repair them.^[18] Constantinople's fortifications remained formidable, but repairing them proved impossible after 1370 due to the destructive nature of an ongoing civil war. By the time the Byzantines emerged from it, they were forced to acknowledge the suzerainty of the Ottoman Sultan, who threatened military action if any repairs were made to the millennium-old Walls of Constantinople. Heavily outnumbered, the walls of the capital provided the defenders in 1453 with 6 weeks of defense.

Navy

The Byzantine navy had always been one of the most powerful in the Eastern Mediterranean up to and including the era of the Komnenian period. However, the neglect under the Angeloi seriously reduced Byzantium's capabilities at sea. Michael VIII reversed the situation and began increasing the size of the navy to about 80 ships. Michael's efforts bore little fruit, however, as is testified by the fact that 32 Venetian ships defeated a Byzantine-Genoan fleet of 48 ships.^[19] Worse still was the fact that Michael VIII became increasingly reliant upon the Genoans for naval support,

having hired 50-60 galleys in 1261.^[20] The Navy collapsed into worse shape still when Andronicus II, as part of his demilitarization of the Empire, disbanded the navy. The consequences did not simply mean an end to a Byzantine naval defense; it also meant an increased reliance on the unreliable Genoans and Venetians (who would consistently burn each other's property in the capital, thereby damaging the city) and left thousands of skilled sailors up for grabs by the Turks, who hired them to build their own fleets. By 1291, Andronicus II had hired 50-60 ships from the Republic of Genoa.^[21] Later in 1320, he realized the necessity of a navy and planned on resurrecting the fleet by constructing 20 galleys, but this attempt failed.^[21]

The destruction of the fleet by Andronicus II was somewhat remedied by Andronicus III, his grandson, who revived the fleet and by 1332 had a navy of 10 ships.^[21] In 1329, the island of Chios was taken by the Byzantines after the Islanders rebelled against the Genoans. Still, the navy remained but one of many in the Aegean, which was also patrolled by Venetians, Crusaders, Turks and the Genoans, who evened the loss of Chios against the Greeks with the capture of Lesbos. From the death of Andronicus III the Empire's civil wars gave the Venetians and Genoans plenty of naval warfare to dominate whilst the lack of a central government and resources worsened the navy further. In 1453, the Empire's fleet consisted of 10 ships. At the conclusive siege of Constantinople, the navy numbered a mere 26 ships, 16 of which were foreign plus another three that arrived from Rome.

Timeline

- 1259 - A Byzantine army of about 6,000 men participates in the Battle of Pelagonia where the empire scored a victory over the Franks.^[4]
- 1261 - Alexios Strategopoulos leads a force of 800 men that succeeds in taking Constantinople without a siege.^[22]
- 1263 - An army of 15,000 men was sent to conquer the Principality of Achaea, but it was defeated near Andravida.^[19] Afterwards, 6,000 mounted troops were left to police the Peloponnese.^[1]
- 1250 - 1280 Michael Palaeologus campaigns against the Latins, Serbians and Bulgarians, conquering Macedonia, northern Greece, and Bulgarian lands in Thrace.
- 1279 - Ivan Asen III was given a Byzantine army of 10,000 men by Michael VIII in order to claim the Bulgarian throne.^[1] He succeeded in capturing Tirnovo and overthrowing Ivailo.
- 1303 - In response to numerous Turkish raids, the Catalan Company of 6,500 men sell their services to the Byzantine Emperor.^[23]
- 1310 - 1340 Despite the assistance of the Golden Horde, Ilkhanate and Aydin, the last Byzantine towns in Asia are lost.
- 1321–1328 - Civil war between Andronicus II and his grandson Andronicus III, leads to the deposition of the former.
- 1329 - Andronicus III and John VI led an army of 4,000 men against the Ottoman Turks, but was defeated at the Battle of Pelekanon.^[6]
- 1330-1340 Andronicus III conquers Epirus, the last of Byzantium's significant conquests.
- 1334 - Significant fortresses in northern Macedonia fall to the Serbs under the renegade Syrgiannes Palaiologos
- 1341–1347 - Civil war between John VI Cantacuzenus and the regency for John V Palaeologus. Macedonia and Albania are lost to Stefan Dushan.
- 1354 - Galipolli is occupied by the Ottomans after an earthquake.
- 1354 - 1390 The Byzantine Empire loses all of Thrace to the advance of the Ottoman troops.
- 1422 - The Walls of Constantinople hold out against a full-scale Ottoman siege.
- 1430 - Thessalonica is sacked by the Ottomans, despite Venetian command of the city.
- c. 1450 - Constantine XI defeats the Crusaders in the Morea, temporarily expanding Byzantine rule there. The Ottomans in reply launch their own offensive, nullifying the gains.
- 1453 - Constantine XI, last *Basileus* and commander of the Byzantine Empire, defending Constantinople with 7,000 men, is slain in battle.

Notes

- [1] G. Ostrogorsky, *History of the Byzantine State*, 483
- [2] Haldon, John (2000). *Byzantium at War 600 - 1453*. New York: Osprey. pp. 55.
- [3] I. Heath, *Byzantine Armies: AD 1118-1461*, 14
- [4] W. Treadgold, *A History of the Byzantine State and Society*, 819
- [5] W. Treadgold, *A Concise History of Byzantium*, 224
- [6] J. Norwich, *Byzantium: The Decline and Fall*, 285
- [7] I. Heath, *Byzantine Armies: AD 1118-1461*, 37
- [8] D. Nicolle, *Constantinople 1453: The end of Byzantium*, 33
- [9] Norwich, John Julius (1997). *A Short History of Byzantium*. New York: Vintage Books. pp. 331.
- [10] Norwich, John Julius (1997). *A Short History of Byzantium*. New York: Vintage Books. pp. 344–346.
- [11] Nicolle, David (2007). *Crusader Castles in Cyprus, Greece and the Aegean 1191 - 1571*. New York: Osprey. pp. 17.
- [12] Nicolle, David (2007). *Crusader Castles in Cyprus, Greece and the Aegean 1191 - 1571*. New York: Osprey. pp. 34.
- [13] Haldon, John (2000). *Byzantium at War 600 - 1453*. New York: Osprey. pp. 56.
- [14] Norwich, John Julius (1997). *A Short History of Byzantium*. New York: Vintage Books. pp. 340.
- [15] I. Heath, *Byzantine Armies: AD 1118-1461*, 24
- [16] I. Heath, *Byzantine Armies: AD 1118-1461*, 24-33
- [17] Nicolle, David (2007). *Crusader Castles in Cyprus, Greece and the Aegean 1191 - 1571*. New York: Osprey. pp. 50.
- [18] Nicolle, David (2007). *Crusader Castles in Cyprus, Greece and the Aegean 1191 - 1571*. New York: Osprey. pp. 45.
- [19] J. Norwich, *Byzantium: The Decline and Fall*, 220
- [20] J. Norwich, *Byzantium: The Decline and Fall*, 221
- [21] I. Heath, *Byzantine Armies: AD 1118-1461*, 17
- [22] M. Bartusis, *The Late Byzantine Army: Arms and Society, 1204-1453*, 27
- [23] I. Heath, *Byzantine Armies: AD 1118-1461*, 22

Campaign history of the Roman military

From its origin as a city-state in Italy in the 8th century BC, to its rise as an empire covering much of Southern Europe, Western Europe, Near East and North Africa and fall in the 5th century AD, the political history of Ancient Rome was typically closely entwined with its military history. The core of the **campaign history of the Roman military** is an aggregate of different accounts of the Roman military's land battles, from its initial defence against and subsequent conquest of the city's hilltop neighbours in the Italian peninsula, to the ultimate struggle of the Western Roman Empire for its existence against invading Huns, Vandals and Germanic tribes after the empire's split into East and West. These accounts were written by various authors throughout and after the history of the Empire. Despite the later Empire's encompassing of lands around the periphery of the Mediterranean Sea, naval battles were typically less significant than land battles to the military history of Rome, due to its largely unchallenged dominance of the sea following fierce naval fighting during the First Punic War.

The Roman army battled first against its tribal neighbours and Etruscan towns within Italy, and later came to dominate much of the Mediterranean and further afield, including the provinces of Britannia and Asia Minor at the Empire's height. As with most ancient civilisations, Rome's military served the triple purpose of securing its borders, exploiting peripheral areas through measures such as imposing tribute on conquered peoples, and maintaining internal order.^[1] From the outset, Rome's military typified this pattern, and the majority of Rome's campaigns were characterised by one of two types: the first is the territorial expansionist campaign, normally begun as a counter-offensive,^[2] in which each victory brought subjugation of large areas of territory and allowed Rome to grow from a small town to one of the largest empires in the ancient world, including a population of 55 million in the early empire when expansion was halted;^[3] the second is the civil war, examples of which plagued Rome right from its foundation to its eventual demise.

Roman armies were not invincible, despite their formidable reputation and host of victories:^[4] over the centuries the Romans "produced their share of incompetents"^[5] who led Roman armies into catastrophic defeats. Nevertheless, it was generally the fate of even the greatest of Rome's enemies, such as Pyrrhus and Hannibal, to win the battle but

lose the war. The history of Rome's campaigning is, if nothing else, a history of obstinate persistence overcoming appalling losses.^{[6][7]}

Kingdom (753 BC – 508 BC)

Rome is almost unique in the ancient world in that its history, military and otherwise, is documented often in great detail almost from the city's very foundation right through to its eventual demise. Although some histories have been lost, such as Trajan's account of the Dacian Wars, and others, such as Rome's earliest histories, are at least semi-apocryphal, the extant histories of Rome's military history are extensive.

The very earliest history, from the time of Rome's founding as a small tribal village,^[8] through to the downfall of Rome's kings, is the least well preserved. This is because, although the early Romans were literate to some degree,^[9] either they lacked the will to record their history at this time or else such histories as they did record were lost.^[10]

Although the Roman historian Livy (59 BC – AD 17)^[11] lists a series of seven kings of early Rome in his work *Ab Urbe Condita*, from its establishment through its earliest years, the degree to which the first four kings (Romulus,^[12] Numa,^{[13][14]} Tullus Hostilius^{[14][15]} and Ancus Marcius)^{[14][16]} are apocryphal is certainly open to question. A number of points of view have been proposed over the long run of time. Grant and others argue that prior to the time when the Etruscan kingdom of Rome was established under the traditional fifth king, Tarquinius Priscus,^[17] Rome would have been led by a religious leader of some sort.^[18] Very little is known of Rome's military history during this era, and what history has come down to us is of a legendary rather than a known factual nature. Traditionally, Romulus fortified one of the first-settled of Rome's seven hills, the Palatine Hill, after founding the city, and Livy states that shortly after its founding Rome was "*equal to any of the surrounding cities in her prowess in war*".^[19]



Rape of the Sabine Women, by Nicolas Poussin, Rome, 1637–38 (Louvre Museum)

"Events before the city was founded or planned, which have been handed down more as pleasing poetic fictions than as reliable records of historical events, I intend neither to affirm nor to refute. To antiquity we grant the indulgence of making the origins of cities more impressive by comingling the human with the divine, and if any people should be permitted to sanctify its inception and reckon the gods as its founders, surely the glory of the Roman people in war is such that, when it boasts Mars in particular as its parent... the nations of the world would as easily acquiesce in this claim as they do in our rule."

Livy, on Rome's early history^[20]

The first campaigns that were fought by the Romans in this legendary account are the wars with various Latin cities and the Sabines after the Rape of the Sabine Women. According to Livy, the Latin village of Caenina responded to the event first by invading Roman territory, but were routed and their village captured. The Latins of Antemnae and those of Crustumerium were defeated next in a similar fashion. The remaining main body of the Sabines attacked Rome and briefly captured the citadel, but were then convinced to conclude a treaty with the Romans under which the Sabines became Roman citizens.^[21]

There was a further war in the 8th century BC against Fidenae and Veii. In the 7th century BC there was a war with Alba Longa, a second war with Fidenae and Veii and a second Sabine War. Ancus Marcius led Rome to victory against the Latins and, according to the *Fasti Triumphales*, over the Veientes and Sabines also.

Tarquinius Priscus

Lucius Tarquinius Priscus' first war was waged against the Latins. Tarquinius took the Latin town of Apiolae by storm and took great booty from there back to Rome.^[22] According to the *Fasti Triumphales*, the war occurred prior to 588 BC.

His military ability was tested by an attack from the Sabines. Tarquinius doubled the numbers of equites to help the war effort,^[23] and defeat the Sabines. In the peace negotiations that followed, Tarquinius received the town of Collatia and appointed his nephew Aruns Tarquinius, surnamed Egerius, as commander of the garrison which he stationed in that city. Tarquinius returned to Rome and celebrated a triumph for his victories that, according to the *Fasti Triumphales*, occurred on 13 September 585 BC.

Subsequently the Latin cities of Corniculum, old Ficulea, Cameria, Crustumerium, Ameriola, Medullia and Nomentum were subdued and became Roman.^[24]

Servius Tullius

Early in his reign, Servius Tullius warred against Veii and the Etruscans. He is said to have shown valour in the campaign, and to have routed a great army of the enemy. The war helped him to cement his position at Rome.^[25] According to the *Fasti Triumphales*, Servius celebrated three triumphs over the Etruscans, including on 25 November 571 BC and 25 May 567 BC (the date of the third triumph is not legible on the *Fasti*).

Tarquinius Superbus

Early in his reign Tarquinius Superbus, Rome's seventh and final king, called a meeting of the Latin leaders at which persuaded them to renew their treaty with Rome and become her allies rather than her enemies, and it was agreed that the troops of the Latins would attend at a grove sacred to the goddess Ferentina on an appointed day to form a united military force with the troops of Rome. This was done, and Tarquin formed combined units of Roman and Latin troops.^[26]

Tarquin next began a war against the Volsci. He took the wealthy town of Suessa Pometia, with the spoils of which he commenced the erection of the Temple of Jupiter Optimus Maximus which his father had vowed. He also celebrated a triumph for his victory.^[27]

He was next engaged in a war with Gabii, one of the Latin cities, which had rejected the Latin treaty with Rome. Unable to take the city by force of arms, Tarquin had his son, Sextus Tarquinius, infiltrate the city, gain the trust of its people and command of its army. In time he killed or exiled the city's leaders, and handed control of the city over to his father.^[28]

Tarquin also agreed a peace with the Aequi, and renewed the treaty of peace between Rome and the Etruscans.^[29] According to the *Fasti Triumphales*, Tarquin also won a victory over the Sabines.

Tarquinius later went to war with the Rutuli. According to Livy, the Rutuli were, at that time, a very wealthy nation. Tarquinius was desirous of obtaining the booty which would come with victory over the Rutuli.^[30] Tarquin unsuccessfully sought to take the Rutulian capital, Ardea, by storm, and subsequently began an extensive siege of the city. The war was interrupted by the revolution which overthrew the Roman monarchy. The Roman army, camped outside Ardea, welcomed Lucius Junius Brutus as their new leader, and expelled the king's sons. It is unclear what was the outcome of the siege, or indeed the war.^[31]

Republic

Early (509 BC – 274 BC)

Early Italian campaigns (509–396 BC)

The first non-apocryphal Roman wars were wars of both expansion and defence, aimed at protecting Rome itself from neighbouring cities and nations and establishing its territory in the region.^[32] Florus writes that at this time "their neighbours, on every side, were continually harassing them ... and, at whatever gate they went out, were sure to meet a foe."^[33]

In the semi-legendary period of the early republic, sources record Rome was twice attacked by Etruscan armies. In around 509 BC war with Veii and Tarquinii was said to have been instigated by the recently-overthrown king Tarquinius Superbus.^{[34][35]} Again in 508 BC Tarquin persuaded the king of Clusium, Lars Porsenna to wage war on Rome, resulting in a siege of Rome and afterwards a peace treaty.^{[33][34][36]}

Initially, Rome's immediate neighbours were either Latin towns and villages^[37] on a tribal system similar to that of Rome, or else tribal Sabines from the Apennine hills beyond.^[38] One by one, Rome defeated both the persistent Sabines and the local cities that were either under Etruscan control or else Latin towns that had cast off their Etruscan rulers, as had Rome.^[38] Rome defeated the Lavinii and Tusculi in the Battle of Lake Regillus in 496 BC,^{[37][39][40]} the Sabines in an unknown battle in 449 BC,^[39] the Aequi in the Battle of Mons Algidus in 458 BC and the Battle of Corbione in 446 BC,^[41] the Volsci^[42] in the Battle of Corbione^[43] in 446 BC and the Capture of Antium in 377 BC,^[44] the Aurunci in the Battle of Aricia,^[45] and the Veientes in the Battle of the Cremera in 477 BC,^{[46][47]} the Capture of Fidenae in 435 BC^{[47][48]} and the Siege of Veii in 396 BC.^{[43][47][48][49]} After defeating the Veientes, the Romans had effectively completed the conquest of their immediate Etruscan neighbours,^[50] as well as secured their position against the immediate threat posed by the tribespeople of the Apennine hills.

However, Rome still controlled only a very limited area and the affairs of Rome were minor even to those in Italy: the remains of Veii, for instance, lie entirely within modern Rome's suburbs^[43] and Rome's affairs were only just coming to the attention of the Greeks, the dominant cultural force at the time.^[51] At this point the bulk of Italy remained in the hands of Latin, Sabine, Samnite and other peoples in the central part of Italy, Greek colonies to the south, and, notably, the Celtic people, including the Gauls, to the north. The Celtic civilization at this time was vibrant and growing in strength and territory, and stretched, if incohesively, across much of mainland Europe. It is at the hands of the Gallic Celts that Rome suffered a humiliating defeat that temporarily set back its advance and was to imprint itself upon the Roman consciousness.



Celtic invasion of Italia (390–387 BC)

By 390 BC, several Gallic tribes had begun invading Italy from the north as their culture expanded throughout Europe. Most of this was unknown to the Romans at this time, who still had purely local security concerns, but the Romans were alerted when a particularly warlike tribe,^{[51][52]} the Senones,^[52] invaded the Etruscan province of Siena from the north and attacked the town of Clusium,^[53] not far from Rome's sphere of influence. The Clusians, overwhelmed by the size of the enemy in numbers and ferocity, called on Rome for help. Perhaps unintentionally^[51] the Romans found themselves not just in conflict with the Senones, but their primary target.^[53] The Romans met them in pitched battle at the Battle of the Allia^{[51][52]} around 390–387 BC. The Gauls, under their chieftain Brennus, defeated the Roman army of around 15,000 troops^[51] and proceeded to pursue the fleeing Romans back to Rome itself and partially sacked the town^{[54][55]} before being either driven off^{[52][56][57]} or bought off.^{[51][53]}

Now that the Romans and Gauls had blooded one another, intermittent warfare was to continue between the two in Italy for more than two centuries, including the Battle of the Allia,^[52] the Battle of Lake Vadimo,^[52] the Battle of Faesulae in 225 BC, the Battle of Telamon in 224 BC, the Battle of Clastidium in 222 BC, the Battle of Cremona in 200 BC, the Battle of Mutina in 194 BC, the Battle of Arausio in 105 BC, and the Battle of Vercellae in 101 BC. The Celtic problem would not be resolved for Rome until the final subjugation of all Gaul following the Battle of Alesia in 52 BC.

Expansion into Italia (343–282 BC)

After recovering surprisingly swiftly from the sack of Rome,^[58] the Romans immediately resumed their expansion within Italy. Despite their successes so far, their mastery of the whole of Italy was by no means assured at this point: the Samnites were a people just as martial^[59] and as rich^[60] as the Romans and with an objective of their own of securing more lands in the fertile^[60] Italian plains on which Rome itself lay.^[61] The First Samnite War of between 343 BC and 341 BC that followed widespread Samnite incursions into Rome's territory^[62] was a relatively short affair: the Romans beat the Samnites in both the Battle of Mount Gaurus in 342 BC and the Battle of Suessula in 341 BC but were forced to withdraw from the war before they could pursue the conflict further due to the revolt of several of their Latin allies in the Latin War.^{[63][64]}



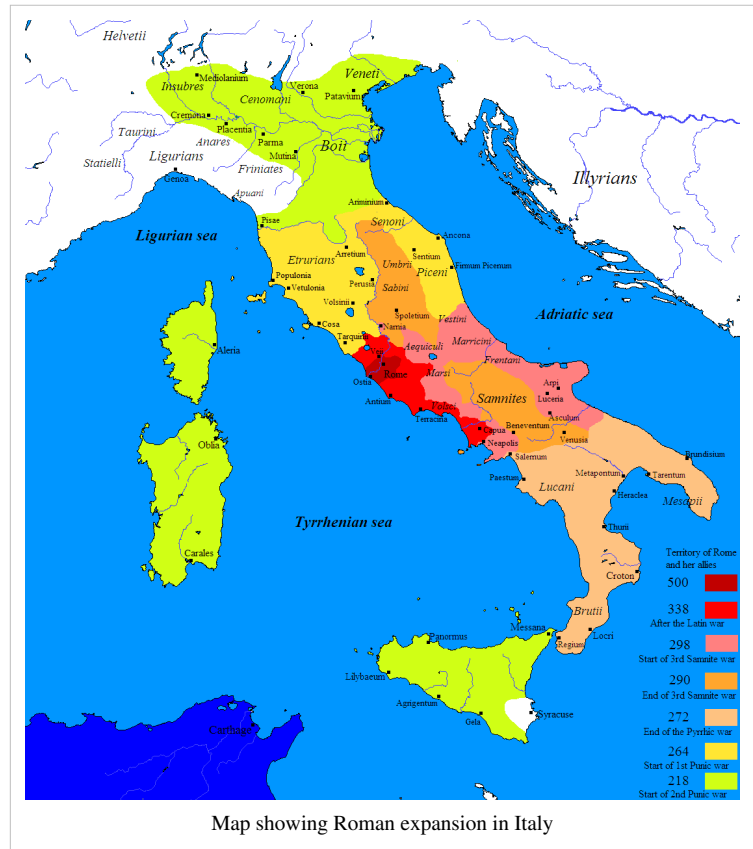
Apennine hills around Samnium

Rome was therefore forced to contend by around 340 BC against both Samnite incursions into their territory and, simultaneously, in a bitter war against their former allies. Rome bested the Latins in the

Battle of Vesuvius and again in the Battle of Trifanum,^[64] after which the Latin cities were obliged to submit to Roman rule.^{[65][66]} Perhaps due to Rome's lenient treatment of their defeated foe,^[63] the Latins submitted largely amicably to Roman rule for the next 200 years.

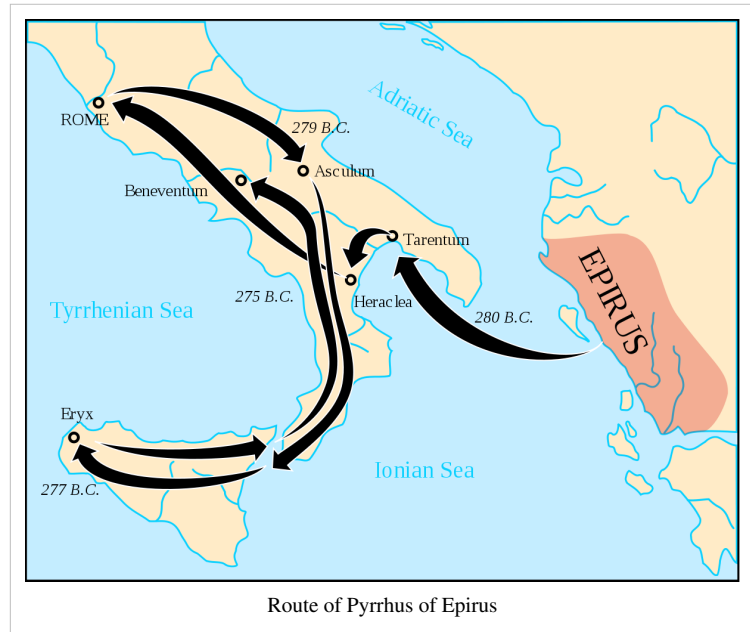
The Second Samnite War, from 327 BC to 304 BC, was a much longer and more serious affair for both the Romans and Samnites,^[67] running for over twenty years and incorporating twenty-four battles^[60] that led to massive casualties on both sides. The fortunes of the two sides fluctuated throughout its course: the Samnites seized Neapolis in the Capture of Neapolis in 327 BC,^[67] which the Romans then re-captured before losing at the Battle of the Caudine Forks^{[60][67][68]} and the Battle of Lautulae. The Romans then proved victorious at the Battle of Bovianum and the tide turned strongly against the Samnites from 314 BC onwards, leading them to sue for peace with progressively less generous terms. By 304 BC the Romans had effectively annexed the greater degree of the Samnite territory, founding several colonies. This pattern of meeting aggression in force and almost inadvertently gaining territory in strategic counter-attacks was to become a common feature of Roman military history.

Seven years after their defeat, with Roman dominance of the area looking assured, the Samnites rose again and defeated the Romans at the Battle of Camerinum in 298 BC, to open the Third Samnite War. With this success in hand they managed to bring together a coalition of several previous enemies of Rome, all of whom were probably keen to prevent any one faction dominating the entire region. The army that faced the Romans at the Battle of Sentinum^[68] in 295 BC therefore included Samnites, Gauls, Etruscans and Umbrians.^[69] When the Roman army won a convincing victory over these combined forces it must have become clear that little could prevent Roman dominance of Italy. In the Battle of Populonia in 282 BC Rome finished off the last vestiges of Etruscan power in the region.



Pyrrhic War (280–275 BC)

By the beginning of the 3rd century, Rome had established itself in 282 BC as a major power on the Italian Peninsula, but had not yet come into conflict with the dominant military powers in the Mediterranean at the time: Carthage and the Greek kingdoms. Rome had all but completely defeated the Samnites, mastered its fellow Latin towns, and greatly reduced Etruscan power in the region. However, the south of Italy was controlled by the Greek colonies of Magna Grecia^[70] who had been allied to the Samnites, and continued Roman expansion brought the two into inevitable conflict.^{[71][72]}



In the naval Battle of Thurii,^[72] Tarentum appealed for military aid to Pyrrhus, ruler of Epirus.^{[72][73]} Motivated by his diplomatic obligations to Tarentum, and a personal desire for military accomplishment,^[74] Pyrrhus landed a Greek army of some 25,000 men^[72] and a contingent of war elephants^{[72][75]} on Italian soil in 280 BC,^[76] where his forces were joined by some Greek colonists and a portion of the Samnites who revolted against Roman control.

The Roman army had not yet seen elephants in battle,^[75] and their inexperience turned the tide in Pyrrhus' favour at the Battle of Heraclea in 280 BC,^{[72][75][77]} and again at the Battle of Ausculum in 279 BC.^{[75][77][78][78]} Despite these victories, Pyrrhus found his position in Italy untenable. Rome steadfastly refused to negotiate with Pyrrhus as long as his army remained in Italy.^[79] Furthermore, Rome entered into a treaty of support with Carthage, and Pyrrhus found that despite his expectations, none of the other Italic peoples would defect to the Greek and Samnite cause.^[80] Facing unacceptably heavy losses with each encounter with the Roman army, and failing to find further allies in Italy, Pyrrhus withdrew from the peninsula and campaigned in Sicily against Carthage,^[81] abandoning his allies to deal with the Romans.^[71]

When his Sicilian campaign was also ultimately a failure, and at the request of his Italian allies, Pyrrhus returned to Italy to face Rome once more. In 275 BC, Pyrrhus again met the Roman army at the Battle of Beneventum.^[78] This time the Romans had devised methods to deal with the war elephants, including the use of javelins,^[78] fire^[81] and, one source claims, simply hitting the elephants heavily on the head.^[75] While Beneventum was indecisive,^[81] Pyrrhus realised that his army had been exhausted and reduced by years of foreign campaigns, and seeing little hope for further gains, he withdrew completely from Italy.

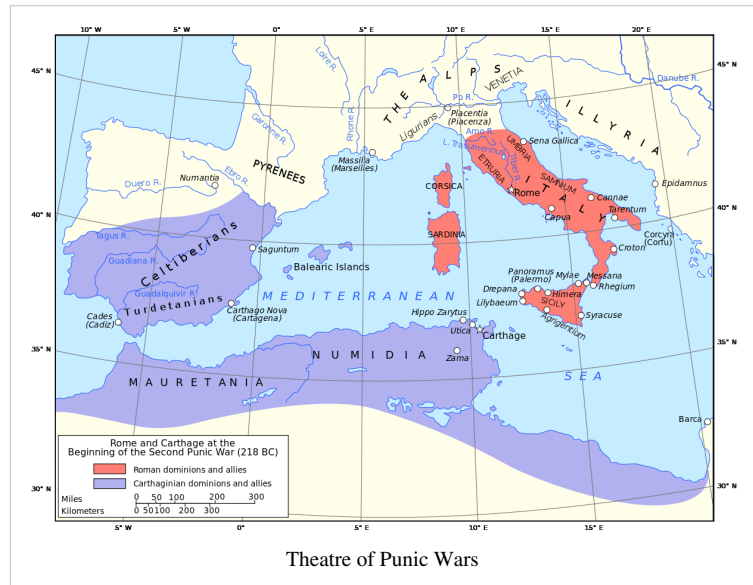
The conflicts with Pyrrhus would have a great effect on Rome, however. Rome had shown that it was capable of pitting its armies successfully against the dominant military powers of the Mediterranean, and further showed that the Greek kingdoms were incapable of defending their colonies in Italy and abroad. Rome quickly moved into southern Italia, subjugating and dividing Magna Grecia.^[82] Effectively dominating the Italian peninsula,^[83] and with a proven international military reputation,^[84] Rome now began to look outwards at expansion from the Italian mainland. Since the Alps formed a natural barrier to the north, and Rome was none too keen to meet the fierce Gauls in battle once more, the city's gaze turned to Sicily and the islands of the Mediterranean, a policy that would bring it into direct conflict with its former ally Carthage.^{[84][85]}

Middle (274 BC – 148 BC)

Rome first began to make war outside the Italian peninsula in the Punic wars against Carthage, a former Phoenician colony^[86] on the north coast of Africa that had developed into a powerful state. These wars, starting in 264 BC^[87] were probably the largest conflicts of the ancient world yet^[88] and saw Rome become the most powerful state of the Western Mediterranean, with territory in Sicily, North Africa, Iberia, and with the end of the Macedonian wars (which ran concurrently with the Punic wars) Greece as well. After the defeat of the Seleucid Emperor Antiochus III the Great in the Roman-Syrian War (Treaty of Apamea, 188 BC) in the eastern sea, Rome emerged as the dominant Mediterranean power and the most powerful city in the classical world.

Punic Wars (264–146 BC)

The First Punic War began in 264 BC when settlements on Sicily began to appeal to the two powers between which they lay – Rome and Carthage – in order to solve internal conflicts.^[87] The willingness of both Rome and Carthage to become embroiled on the soil of a third party may indicate a willingness to test each other's power without wishing to enter a full war of annihilation; certainly there was considerable disagreement within Rome about whether to prosecute the war at all.^[89] The war saw land battles in Sicily early on such as the Battle of Agrigentum but the theatre shifted to naval battles around Sicily and Africa. For the Romans naval warfare was a relatively unexplored concept.^[90] Before the First Punic War in 264 BC there was no Roman navy to speak of as all previous Roman wars had been fought on land in Italy. The new war in Sicily against Carthage, a great naval power,^[91] forced Rome to quickly build a fleet and train sailors.^[92]



Rome took to naval warfare "like a brick to water"^[85] and the first few naval battles of the First Punic War such as the Battle of the Lipari Islands were catastrophic disasters for Rome, as might fairly be expected from a city that had no real prior experience of naval warfare. However, after training more sailors and inventing a grappling engine known as a *Corvus*,^[93] a Roman naval force under C. Duilius was able to roundly defeat a Carthaginian fleet at the Battle of Mylae. In just 4 years, a state without any real naval experience had managed to better a major regional maritime power in battle. Further naval victories followed at the Battle of Tyndaris and Battle of Cape Ecnomus.^[94]

After having won control of the seas, a Roman force landed on the African coast under Regulus, who was at first victorious, winning the Battle of Adys^[95] and forcing Carthage to sue for peace.^[96] However the terms of peace that Rome proposed were so heavy that negotiations failed^[96] and, in response, the Carthaginians hired Xanthippus of Carthage, a mercenary from the martial Greek city-state of Sparta, to reorganise and lead their army.^[97] Xanthippus managed to cut off the Roman army from its base by re-establishing Carthaginian naval supremacy, then defeated and captured Regulus^[98] at the Battle of Tunis.^[99]

Despite being defeated on African soil, with their newfound naval abilities, the Romans roundly beat the Carthaginians in naval battle again – largely through the tactical innovations of the Roman fleet^[87] – at the Battle of the Aegates Islands and leaving Carthage without a fleet or sufficient coin to raise one. For a maritime power the loss of their access to the Mediterranean stung financially and psychologically, and the Carthaginians again sued for peace,^[100] during which Rome battled the *Ligures* tribe in the Ligurian War^[101] and the *Insubres* in the Gallic

War.^[102]

Continuing distrust led to the renewal of hostilities in the Second Punic War when Hannibal Barca, a member of the Barcid family of Carthaginian nobility, attacked Saguntum,^{[103][104]} a city with diplomatic ties to Rome.^[105] Hannibal then raised an army in Iberia and famously crossed the Italian Alps with elephants to invade Italy.^{[106][107]} In the first battle on Italian soil at Ticinus in 218 BC Hannibal defeated the Romans under Scipio the Elder in a small cavalry fight.^{[108][109]} Hannibal's success continued with victories in the Battle of the Trebia,^{[108][110]} the Battle of Lake Trasimene, where he ambushed an unsuspecting Roman army,^{[111][112]} and the Battle of Cannae,^{[113][114]} in what is considered one of the great masterpieces of the tactical art, and for a while "Hannibal seemed invincible",^[106] able to beat Roman armies at will.^[115]

In the three battles of Nola, Roman general Marcus Claudius Marcellus managed to hold off Hannibal but then Hannibal smashed a succession of Roman consular armies at the First Battle of Capua, the Battle of the Silarus, the Second Battle of Herdonia, the Battle of Numistro and the Battle of Asculum. By this time Hannibal's brother Hasdrubal Barca sought to cross the Alps into Italy and join his brother with a second army. Despite being defeated in Iberia in the Battle of Baecula, Hasdrubal managed to break through into Italy only to be defeated decisively by Gaius Claudius Nero and Marcus Livius Salinator on the Metaurus River.^[106]

"Apart from the romance of Scipio's personality and his political importance as the founder of Rome's world-dominion, his military work has a greater value to modern students of war than that of any other great captain of the past.. His genius revealed to him that peace and war are the two wheels on which the world runs."

BH Liddell Hart on Scipio Africanus Major^[116]

Unable to defeat Hannibal himself on Italian soil, and with Hannibal savaging the Italian countryside but unwilling or unable to destroy Rome itself, the Romans boldly sent an army to Africa with the intention of threatening the Carthaginian capital.^[117] In 203 BC at the Battle of Bagradas the invading Roman army under Scipio Africanus Major defeated the Carthaginian army of Hasdrubal Gisco and Syphax and Hannibal was recalled to Africa.^[106] At the famous Battle of Zama Scipio decisively defeated^[118] – perhaps even "annihilated"^[106] – Hannibal's army in North Africa, ending the Second Punic War.

Carthage never managed to recover after the Second Punic War^[119] and the Third Punic War that followed was in reality a simple punitive mission to raze the city of Carthage to the ground.^[120] Carthage was almost defenceless and when besieged offered immediate surrender, conceding to a string of outrageous Roman demands.^[121] The Romans refused the surrender, demanding as their further terms of surrender the complete destruction of the city^[122] and, seeing little to lose,^[122] the Carthaginians prepared to fight.^[121] In the Battle of Carthage the city was stormed after a short siege and completely destroyed,^[123] its culture "almost totally extinguished".^[124]

Conquest of the Iberian peninsula (219–18 BC)

Rome's conflict with the Carthaginians in the Punic Wars led them into expansion in the Iberian peninsula of modern-day Spain and Portugal.^[125] The Punic empire of the Carthaginian Barcid family consisted of territories in Iberia, many of which Rome gained control of during the Punic Wars. Italy remained the main theatre of war for much of the Second Punic War, but the Romans also aimed to destroy the Barcid Empire in Iberia and prevent major Punic allies from linking up with forces in Italy.

Over the years Rome had gradually expanded along the southern Iberian coast until in 211 BC it captured the city of Saguntum. Following two major military expeditions to Iberia, the Romans finally crushed Carthaginian control of the peninsula in 206 BC, at the Battle of Ilipa, and the peninsula became a Roman province known as Hispania. From 206 BC onwards the only opposition to Roman control of the peninsula came from within the native Celtiberian tribes themselves, the disunity of which prevented security from Roman expansion.^[125]

Following two small-scale rebellions in 197 BC,^[126] in 195–194 BC, war broke out in between the Romans and the Lusitani people in the Lusitanian War, in modern-day Portugal.^[127] By 179 BC, the Romans had mostly succeeded

in pacifying the region and bringing it under their control.^[126]

In around 154 BC,^[126] a major revolt was re-ignited in Numantia, which is known as the First Numantine War,^[125] and a long war of resistance was fought between the advancing forces of the Roman Republic and the Lusitani tribes of Hispania. The praetor Servius Sulpicius Galba and the proconsul Lucius Licinius Lucullus arrived in 151 BC and began the process of subduing the local population.^[128] Galba betrayed the Lusitani leaders he had invited to peace talks and had them killed in 150 BC, ingloriously ending the first phase of the war.^[128]

The Lusitani revolted again in 146 BC under a new leader called Viriathus,^[126] invading Turdetania (southern Iberia) in a guerilla war.^[129] The Lusitanians were initially successful, defeating a Roman army at the Battle of Tribola and going on to sack nearby Carpetania,^[130] and then besting a second Roman army at the First Battle of Mount Venus in 146 BC, again going on to sack another nearby city.^[130] In 144 BC, the general Quintus Fabius Maximus Aemilianus campaigned successfully against the Lusitani, but failed in his attempts to arrest Viriathus.

In 144 BC, Viriathus formed a league against Rome with several Celtiberian tribes^[131] and persuaded them to rise against Rome too, in the Second Numantine War.^[132] Viriathus' new coalition bested Roman armies at the Second Battle of Mount Venus in 144 BC and again at the failed Siege of Erisone.^[132] In 139 BC, Viriathus was finally killed in his sleep by three of his companions who had been promised gifts by Rome.^[133] In 136 and 135 BC, more attempts were made to gain complete control of the region of Numantia, but they failed. In 134 BC, the Consul Scipio Aemilianus finally succeeded in suppressing the rebellion following the successful Siege of Numantia.^[134]

Since the Roman invasion of the Iberian peninsula had begun in the south in the territories around the Mediterranean controlled by the Barcids, the last region of the peninsula to be subdued lay in the far north. The Cantabrian Wars or Astur-Cantabrian Wars, from 29 BC to 19 BC, occurred during the Roman conquest of these northern provinces of Cantabria and Asturias. Iberia was fully occupied by 25 BC and the last revolt put down by 19 BC^[135]

Macedon, the Greek poleis, and Illyria (215–148 BC)

Rome's preoccupation with its war with Carthage provided an opportunity for Philip V of the kingdom of Macedon in northern Greece, to attempt to extend his power westward. Philip sent ambassadors to Hannibal's camp in Italy, to negotiate an alliance as common enemies of Rome.^{[136][137]} However, Rome discovered the agreement when Philip's emissaries, along with emissaries from Hannibal, were captured by a Roman fleet.^[136] Desiring to prevent Philip from aiding Carthage in Italy and elsewhere, Rome sought out land allies in Greece to fight a proxy war against Macedon on its behalf and found partners in the Aetolian League of Greek city-states,^[137] the Illyrians to the north of Macedon and the kingdom of Pergamon^[138] and the city-state of Rhodes,^[138] which lay across the Aegean from Macedon.^[139]



The First Macedonian War saw the Romans involved directly in only limited land operations and when the Aetolians sued for peace with Philip once more Rome's small expeditionary force, with no more allies in Greece, but having

achieved their objective of pre-occupying Philip and preventing him from aiding Hannibal, was ready to make peace.^[139] A treaty was drawn up between Rome and Macedon at Phoenix in 205 BC which promised Rome a small indemnity,^[123] formally ending the First Macedonian War.^[140]

Macedon began to encroach on territory claimed by several other Greek city states in 200 BC and these states pleaded for help from their newfound ally Rome.^[141] Rome gave Philip an ultimatum that he must submit Macedonia to being essentially a Roman province. Philip, unsurprisingly, refused and, after initial internal reluctance for further hostilities,^[142] Rome declared war against Philip in the Second Macedonian War.^[141] In the Battle of the Aous Roman forces under Titus Quinctius Flamininus defeated the Macedonians,^[143] and in a second larger battle under the same opposing commanders in 197 BC, in the Battle of Cynoscephalae,^[144] Flamininus again beat the Macedonians decisively.^{[143][145]} Macedonia was forced to sign the Treaty of Tempea, in which it lost all claim to territory in Greece and Asia, and had to pay a war indemnity to Rome.^[146]

Between the second and third Macedonian wars Rome faced further conflict in the region due to a tapestry of shifting rivalries, alliances and leagues all seeking to gain greater influence. After the Macedonians had been defeated in the Second Macedonian War in 197 BC, the Greek city-state of Sparta stepped into the partial power vacuum in Greece. Fearing the Spartans would take increasing control of the region, the Romans drew on help from allies to prosecute the Roman-Spartan War, defeating a Spartan army at the Battle of Gythium in 195 BC.^[146] They also fought their former allies the Aetolian League in the Aetolian War,^[147] against the Istrians in the Istrian War,^[148] against the Illyrians in the Illyrian War,^[149] and against Achaia in the Achaean War.^[150]

Rome now turned its attentions to Antiochus III of the Seleucid Empire to the east. After campaigns as far abroad as Bactria, India, Persia and Judea, Antiochus moved to Asia Minor and Thrace^[151] to secure several coastal towns, a move that brought him into conflict with Roman interests. A Roman force under Manius Acilius Glabrio defeated Antiochus at the Battle of Thermopylae^[145] and forced him to evacuate Greece:^[152] the Romans then pursued the Seleucids beyond Greece, beating them again in naval battles at the Battle of the Eurymedon and Battle of Myonessus, and finally in a decisive engagement of the Battle of Magnesia.^{[152][153]}

In 179 BC Philip died^[154] and his talented and ambitious son, Perseus of Macedon, took his throne and showed a renewed interest in Greece.^[155] He also allied himself with the warlike Bastarnae,^[155] and both this and his actions in Greece possibly violated the treaty signed with the Romans by his father or, if not, certainly was not "behaving as [Rome considered] a subordinate ally should".^[155] Rome declared war on Macedonia again, starting the Third Macedonian War. Perseus initially had greater military success against the Romans than his father, winning the Battle of Callicinus against a Roman consular army. However, as with all such ventures in this period, Rome responded by simply sending another army. The second consular army duly defeated the Macedonians at the Battle of Pydna in 168 BC^{[154][156]} and the Macedonians, lacking the reserve of the Romans and with King Perseus captured,^[157] duly capitulated, ending the Third Macedonian War.^[158]

The Fourth Macedonian War, fought from 150 BC to 148 BC, was the final war between Rome and Macedon and began when Andriscus usurped the Macedonian throne. The Romans raise a consular army under Quintus Caecilius Metellus, who swiftly defeated Andriscus at the Second battle of Pydna.

Under Lucius Mummius, Corinth was destroyed following a siege in 146 BC, leading to the surrender and thus conquest of the Achaean League (see Battle of Corinth).

Late (147 BC – 30 BC)

Jugurthine War (112–105 BC)

Rome had, in the earlier Punic Wars, gained large tracts of territory in Africa, which they had consolidated in the following centuries,^[159] and much of which had been granted to the kingdom of Numidia, a kingdom on the north African coast approximating to modern Algeria, in return for its past military assistance.^[160] The Jugurthine War of 111–104 BC was fought between Rome and Jugurtha of Numidia and constituted the final Roman pacification of

Northern Africa,^[161] after which Rome largely ceased expansion on the continent after reaching natural barriers of desert and mountain. Following Jugurtha's usurpation of the Numidian throne,^[162] a loyal ally of Rome since the Punic Wars,^[163] Rome felt compelled to intervene. Jugurtha impudently bribed the Romans into accepting his usurpation^{[164][165][166]} and was granted half the kingdom. Following further aggression and further bribery attempts, the Romans sent an army to tackle him. The Romans were defeated at the Battle of Suthul^[167] but fared better at the Battle of the Muthul^[168] and finally defeated Jugurtha at the Battle of Thala,^{[169][170]} the Battle of Mulucha,^[171] and the Battle of Cirta (104 BC).^[172] Jugurtha was finally captured not in battle but by treachery,^{[173][174]} ending the war.^[175]

Resurgence of the Celtic threat (121 BC)

By 121 BC, memories of Rome itself being sacked by Celtic tribes from Gaul were still prominent despite their historical distance, having been made into a legendary account that was taught to each generation of Roman youth. However, Rome was, unknown at the time, to face a resurgent Celtic threat within the next year. In 121 BC, Rome came into contact with the Celtic tribes of the Allobroges and the Arverni, both of which they defeated with apparent ease in the First Battle of Avignon near the Rhone river and the Second Battle of Avignon, the same year.^[176]

New Germanic threat (113–101 BC)

The Cimbrian War (113–101 BC) was a far more serious affair than the earlier clashes of 121 BC. The Germanic tribes of the *Cimbri*^[177] and the *Teutons* or *Teutones*^[177] migrated from northern Europe into Rome's northern territories,^[178] and clashed with Rome and her allies.^[179] The Cimbrian War was the first time since the Second Punic War that Italia and Rome itself had been seriously threatened, and caused great fear in Rome^[179] for some time. The Battle of Noreia in 112 BC, was the opening action of the Cimbrian War fought between the Roman Republic and the migrating Proto-Germanic tribes of the Cimbri and the Teutons. It ended in defeat, and near disaster, for the Romans. In 105 BC the Romans suffered one of their worst defeats ever at the Battle of Arausio. It was the costliest defeat Rome had suffered since the Battle of Cannae. After the Cimbri inadvertently granted the Romans a reprieve by diverting to plunder Iberia,^[180] Rome was given the opportunity to carefully prepare for and successfully meet the Cimbri and Teutons in battle^[178] in the Battle of Aquae Sextiae^[180] (102 BC) and the Battle of Vercellae^[180] (101 BC) where both tribes were virtually annihilated, ending the threat.

Internal unrest (135–71 BC)

The extensive campaigning abroad by Roman generals, and the rewarding of soldiers with plunder on these campaigns, led to a general trend of soldiers becoming increasingly loyal to their generals rather than to the state, and to a willingness to follow their generals in battle against the state.^[181] Rome was also plagued by several slave uprisings during this period, in part because in the past century vast tracts of land had been given over to slave farming in which the slaves greatly outnumbered their Roman masters. In the last century BC at least twelve civil wars and rebellions occurred. This pattern did not break until Octavian (later *Caesar Augustus*) ended it by becoming a successful challenger to the Senate's authority, and was made *princeps* (emperor).

Between 135 BC and 71 BC there were three Servile Wars involving slave uprisings against the Roman state, the third uprising the most serious,^[182] - estimates of the numbers involved include 120,000^[183] and 150,000^[184] revolting slaves. Additionally, in 91 BC the Social War broke out between Rome and its former allies in Italy,^{[185][186]} collectively known as the *Socii*, over dissent among the allies that they shared the risk of Rome's military campaigns, but not its rewards.^{[178][187][188]} Despite defeats such as the Battle of Fucine Lake, Roman troops defeated the Italian militias in decisive engagements, notably the Battle of Asculum. Although they lost militarily, the *Socii* achieved their objectives with the legal proclamations of the *Lex Julia* and *Lex Plautia Papiria*, which granted citizenship to more than 500,000 Italians.^[187]

The internal unrest reached its most serious, however, in the two civil wars or marches upon Rome of the consul Lucius Cornelius Sulla at the beginning of 82 BC. In the Battle of the Colline Gate at the very door of the city of

Rome, a Roman army under Sulla bested an army of the Roman senate, along with some Samnite allies.^[189] Whatever the rights and wrongs of his grievances against those in power of the state, his actions marked a watershed of the willingness of Roman troops to wage war against one another that was to pave the way for the wars of the triumvirate, the overthrowing of the Senate as the *de facto* head of the Roman state, and the eventual endemic usurpation of the later Empire.

Conflicts with Mithridates (89–63 BC)

Mithridates the Great was the ruler of Pontus,^[190] a large kingdom in Asia Minor, from 120 to 63 BC. He is remembered as one of Rome's most formidable and successful enemies who engaged three of the most prominent generals of the late Roman Republic: Sulla, Lucullus, and Pompey the Great. In a pattern familiar from the Punic Wars, the Romans came into conflict with him after the two states' spheres of influence began to overlap. Mithridates antagonised Rome by seeking to expand his kingdom,^[190] and Rome for her part seemed equally keen for war and the spoils and prestige that it might bring.^{[190][191]} After conquering western Anatolia (modern Turkey) in 88 BC, Roman sources claim that Mithridates ordered the killing of the majority of the 80,000 Romans living there.^[192] In the subsequent First Mithridatic War, the Roman general Lucius Cornelius Sulla forced Mithridates out of Greece proper after the Battle of Chaeronea and later Battle of Orchomenus but then had to return to Italy to answer the internal threat posed by his rival Marius; consequently, Mithridates VI was defeated but not beaten. A peace was made between Rome and Pontus, but this proved only a temporary lull.

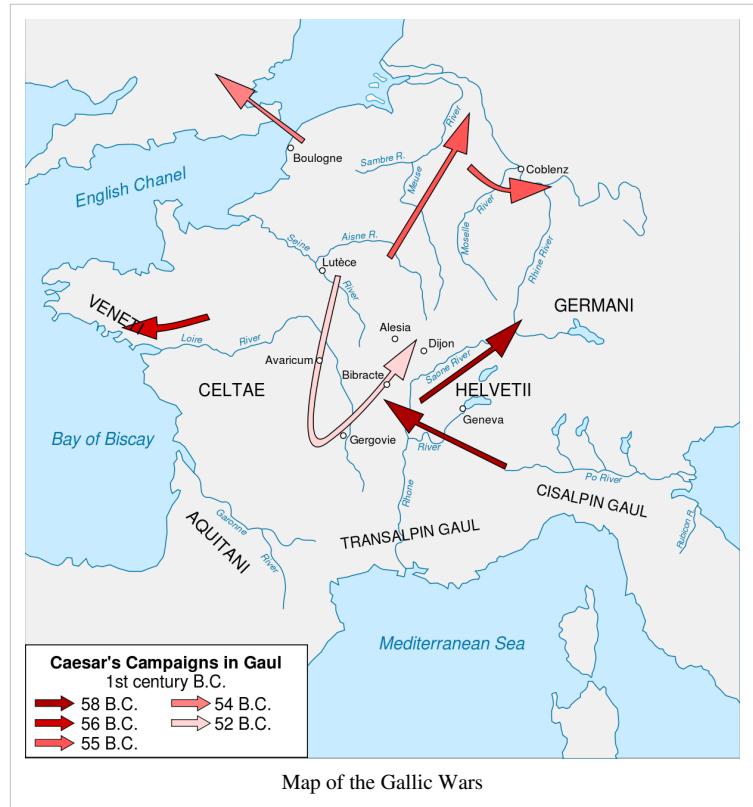
The Second Mithridatic War began when Rome tried to annex Bithynia as a province. In the Third Mithridatic War, first Lucius Licinius Lucullus and then Pompey the Great were sent against Mithridates.^[193] Mithridates was finally defeated by Pompey in the night-time Battle of the Lycus.^[194] After defeating Mithridates, Pompey invaded Caucasus, subjected Kingdom of Iberia and established Roman control over Colchis.

Campaign against the Cilician pirates (67 BC)

The Mediterranean had at this time fallen into the hands of pirates,^[194] largely from Cilicia.^[195] Rome had destroyed many of the states that had previously policed the Mediterranean with fleets, but had failed to step into the gap created.^[196] The pirates had seized the opportunity of a relative power vacuum and had not only strangled shipping lanes but had plundered many cities on the coasts of Greece and Asia,^[195] and had even made descents upon Italy itself.^[197] After the Roman admiral Marcus Antonius Creticus (father of the triumvir Marcus Antonius) failed to clear the pirates to the satisfaction of the Roman authorities, Pompey was nominated his successor as commander of a special naval task force to campaign against the pirates.^{[193][194]} It supposedly took Pompey just forty days to clear the western portion of the sea of pirates,^{[195][198]} and restore communication between Iberia, Africa, and Italy. Plutarch describes how Pompey first swept their craft from the Mediterranean in a series of small actions and through promise of honouring the surrender of cities and craft. He then followed the main body of the pirates to their strongholds on the coast of Cilicia, and destroyed them there in the naval Battle of Korakesion.^[194]

Caesar's early campaigns (59–50 BC)

During a term as praetor in Iberia, Pompey's contemporary Julius Caesar of the Roman Julii clan defeated the Calaici and Lusitani in battle.^[199] Following a consular term, he was then appointed to a five year term as Proconsular Governor of Transalpine Gaul (current southern France) and Illyria (the coast of Dalmatia).^{[199][200]} Not content with an idle governorship, Caesar strove to find reason to invade Gaul, which would give him the dramatic military success he sought.^[201] To this end he stirred up popular nightmares of the first sack of Rome by the Gauls and the more recent spectre of the Cimbri and Teutones.^[201] When the Helvetii and Tigurini^[199] tribes began to migrate on a route that would take them near (not into)^[202] the Roman province of Transalpine Gaul, Caesar had the barely sufficient excuse he needed for his Gallic Wars, fought between 58 BC and 49 BC.^[203] After slaughtering the Helvetii tribe,^[204] Caesar prosecuted a "long, bitter and costly"^[205] campaign against other tribes across the breadth of Gaul, many of whom had fought alongside Rome against their common enemy the Helvetii,^[202] and annexed their territory to that of Rome. Plutarch claims that the campaign cost a million Gallic lives.^[206] Although "fierce and able"^[205] the Gauls were handicapped by internal disunity and fell in a series of battles over the course of a decade.^{[205][207]}



Caesar defeated the *Helvetii* in 58 BC at the Battle of the Arar and Battle of Bibracte,^[208] the Belgic confederacy known as the *Belgae* at the Battle of the Axona,^{[199][204]} the *Nervii* in 57 BC at the Battle of the Sabis,^{[199][209]} the *Aquitani*, *Treviri*, *Tencteri*, *Aedui* and *Eburones* in unknown battles,^[204] and the *Veneti* in 56 BC.^[204] In 55 and 54 BC he made two expeditions to Britain.^{[204][210]} In 52 BC, following the Siege of Avaricum and a string of inconclusive battles,^[211] Caesar defeated a union of Gauls led by Vercingetorix^[212] at the Battle of Alesia,^{[213][214]} completing the Roman conquest of Transalpine Gaul. By 50 BC, the entirety of Gaul lay in Roman hands.^[213] Caesar recorded his own accounts of these campaigns in *Commentarii de Bello Gallico* ("Commentaries on the Gallic War").

Gaul never regained its Celtic identity, never attempted another nationalist rebellion, and remained loyal to Rome until the fall of the Western Empire in 476. However, although Gaul itself was to thereafter remain loyal, cracks were appearing in the political unity of Rome's governing figures – partly over concerns over the loyalty of Caesar's Gallic troops to his person rather than the state^[205] – that were soon to drive Rome into a lengthy series of civil wars.

Triumvirates, Caesarian ascension, and revolt (53–30 BC)

By 59 BC an unofficial political alliance known as the First Triumvirate was formed between Gaius Julius Caesar, Marcus Licinius Crassus, and Gnaeus Pompeius Magnus to share power and influence.^[215] It was always an uncomfortable alliance given that Crassus and Pompey intensely disliked one another. In 53 BC, Crassus launched a Roman invasion of the Parthian Empire. After initial successes,^[216] he marched his army deep into the desert;^[217] but here his army was cut off deep in enemy territory, surrounded and slaughtered^[204] at the Battle of Carrhae^{[218][219]} in "the greatest Roman defeat since Hannibal"^[220] in which Crassus himself perished.^[221] The death of Crassus removed some of the balance in the Triumvirate and, consequently, Caesar and Pompey began to move apart. While Caesar was fighting against Vercingetorix in Gaul, Pompey proceeded with a legislative agenda for Rome that revealed that he was at best ambivalent towards Caesar^[222] and perhaps now covertly allied with Caesar's political enemies. In 51 BC, some Roman senators demanded that Caesar would not be permitted to stand for Consul unless he turned over control of his armies to the state, and the same demands were made of Pompey by other factions.^{[223][224]} Relinquishing his army would leave Caesar defenceless before his enemies. Caesar chose Civil War over laying down his command and facing trial.^[223] The triumvirate was shattered and conflict was inevitable.

Pompey initially assured Rome and the senate that he could defeat Caesar in battle should he march on Rome.^{[225][226]} However, by the spring of 49 BC, when Caesar crossed the Rubicon river with his invading forces and swept down the Italian peninsula towards Rome, Pompey ordered the abandonment of Rome.^{[225][226]} Caesar's army was still under-strength, with certain units remaining in Gaul,^[225] but on the other hand Pompey himself only had a small force at his command, and that with uncertain loyalty having served under Caesar.^[226] Tom Holland attributes Pompey's willingness to abandon Rome to waves of panicking refugees stirring ancestral fears of invasions from the north.^[227] Pompey's forces retreated south towards Brundisium,^[228] and then fled to Greece.^{[226][229]} Caesar first directed his attention to the Pompeian stronghold of Iberia^[230] but following campaigning by Caesar in the Siege of Massilia and Battle of Ilerda decided to tackle Pompey himself in Greece.^{[231][232]} Pompey initially defeated Caesar at the Battle of Dyrrachium in 48 BC^[233] but failing to follow up on the victory, Pompey was decisively defeated in the Battle of Pharsalus in 48 BC^{[234][235]} despite outnumbering Caesar's forces two to one.^[236] Pompey fled again, this time to Egypt, where he was murdered^{[194][237]} in an attempt to ingratiate the country with Caesar and avoid a war with Rome.^{[220][234]}

Pompey's death did not see the end of the civil wars since initially Caesar's enemies were manifold and Pompey's supporters continued to fight on after his death. In 46 BC Caesar lost perhaps as much as a third of his army when his former commander Titus Labienus, who had defected to the Pompeians several years earlier, defeated him at the Battle of Ruspina. However, after this low point Caesar came back to defeat the Pompeian army of Metellus Scipio in the Battle of Thapsus, after which the Pompeians retreated yet again to Iberia. Caesar defeated the combined forces of Titus Labienus and Gnaeus Pompey the Younger at the Battle of Munda in Iberia. Labienus was killed in the battle and the Younger Pompey captured and executed.

"The Parthians began to shoot from all sides. They did not pick any particular target since the Romans were so close together that they could hardly miss...If they kept their ranks they were wounded. If they tried to charge the enemy, the enemy did not suffer more and they did not suffer less, because the Parthians could shoot even as they fled...When Publius urged them to charge the enemy's mail-clad horsemen, they showed him that their hands were riveted to their shields and their feet nailed through and through to the ground, so that they were helpless either for flight or for self-defence."

Plutarch on the Battle of Carrhae^[238]

Despite his military success, or probably because of it, fear spread of Caesar, now the primary figure of the Roman state, becoming an autocratic ruler and ending the Roman Republic. This fear drove a group of senators naming themselves The Liberators to assassinate him in 44 BC.^[239] Further civil war followed between those loyal to Caesar and those who supported the actions of the Liberators. Caesar's supporter Mark Antony condemned Caesar's assassins and war broke out between the two factions. Antony was denounced as a public enemy, and Octavian was

entrusted with the command of the war against him. In the Battle of Forum Gallorum Antony, besieging Caesar's assassin Decimus Brutus in Mutina, defeated the forces of the consul Pansa, who was killed, but Antony was then immediately defeated by the army of the other consul, Hirtius. At the Battle of Mutina Antony was again defeated in battle by Hirtius, who was killed. Although Antony failed to capture Mutina, Decimus Brutus was murdered shortly thereafter.

Octavian betrayed his party, and came to terms with Caesarians Antony and Lepidus and on 26 November 43 BC the Second Triumvirate was formed,^[240] this time in an official capacity.^[239] In 42 BC Triumvirs Mark Antony and Octavian fought the indecisive Battle of Philippi with Caesar's assassins Marcus Brutus and Cassius. Although Brutus defeated Octavian, Antony defeated Cassius, who committed suicide. Brutus also committed suicide shortly afterwards.

However, civil war flared again when the Second Triumvirate of Octavian, Lepidus and Mark Antony failed just as the first had almost as soon as its opponents had been removed. The ambitious Octavian built a power base and then launched a campaign against Mark Antony.^[239] Together with Lucius Antonius, Mark Antony's wife Fulvia raised an army in Italy to fight for Antony's rights against Octavian but she was defeated by Octavian at the Battle of Perugia. Her death led to partial reconciliation between Octavian and Antony who went on to crush the army of Sextus Pompeius, the last focus of opposition to the second triumvirate, in the naval Battle of Naulochus.

As before, once opposition to the triumvirate was crushed, it started to tear at itself. The triumvirate expired on the last day of 33 BC and was not renewed in law and in 31 BC, war began again. At the Battle of Actium,^[241] Octavian decisively defeated Antony and Cleopatra in a naval battle near Greece, using fire to destroy the enemy fleet.^[242]

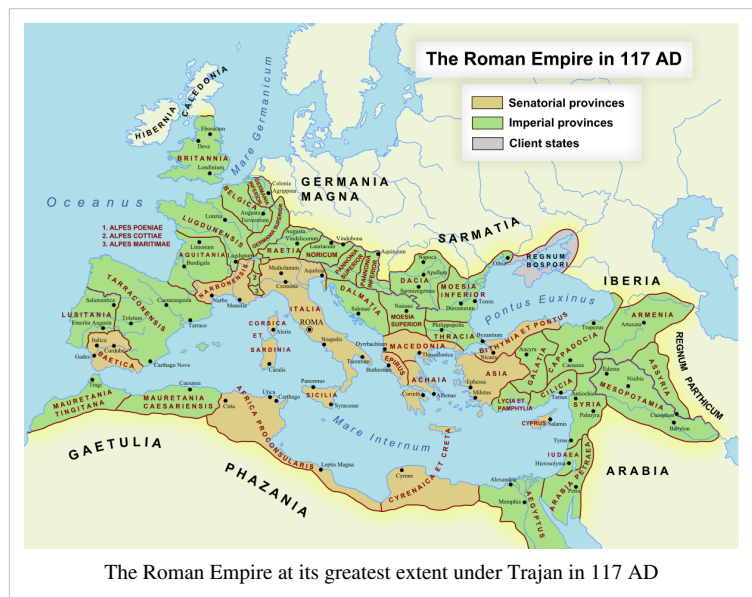
Octavian went on to become Emperor under the name Augustus^[241] and, in the absence of political assassins or usurpers, was able to greatly expand the borders of the Empire.

Empire

Early to Middle (30 BC – 180 AD)

Imperial expansion (40 BC – 117)

Under emperors secure from interior enemies, such as Augustus and Trajan, the military achieved great territorial gains in both the East and the West. In the West, following humiliating defeats at the hands of the Sugambri, Tencteri and Usipetes tribes in 16 BC,^[243] Roman armies pushed north and east out of Gaul to subdue much of Germania. The Pannonian revolt in AD 6^[243] forced the Romans to cancel their plan to cement their conquest of Germania by invading Bohemia^[244] for the moment.^{[135][245]} Despite the loss of a large army almost to the man in Varus' famous defeat at the hands of the Germanic leader Arminius in the Battle of the Teutoburg Forest in AD 9,^{[246][247][248]} Rome recovered and continued its expansion up to and beyond the borders of the



known world. Roman armies under Germanicus pursued several more campaigns against the Germanic tribes of the Marcomanni, Hermunduri, Chatti,^[249] Cherusci,^[250] Bructeri,^[250] and Marsi.^[251] Overcoming several mutinies in

the armies along the Rhine,^[252] Germanicus defeated the Germanic tribes of Arminius in a series of battles culminating in the Battle of the Weser River.^[253]

After preliminary low-scale invasions of Britain,^{[254][255]} the Romans invaded Britain in force in 43 AD,^[256] forcing their way inland through several battles against British tribes, including the Battle of the Medway,^[256] the Battle of the Thames, the Battle of Caer Caradoc and the Battle of Mona.^[257] Following a general uprising^{[258][259]} in which the Britons sacked Colchester,^[260] St Albans^[261] and London,^{[261][262]} the Romans suppressed the rebellion in the Battle of Watling Street^{[263][264]} and went on to push as far north as central Scotland in the Battle of Mons Graupius.^{[265][266]} Tribes in modern-day Scotland and Northern England repeatedly rebelled against Roman rule and two military bases were established in Britannia to protect against rebellion and incursions from the north, from which Roman troops built and manned Hadrian's Wall.^[267]

On the continent, the extension of the Empire's borders beyond the Rhine hung in the balance for some time, with the emperor Caligula apparently poised to invade Germania in AD 39, and Cnaeus Domitius Corbulo crossing the Rhine in AD 47 and marching into the territory of the Frisii and Chauci^[268] before his successor Claudius ordered the suspension of further attacks across the Rhine,^[268] setting what was to become the permanent limit of the Empire's expansion in this direction.^[2]

"Never was there slaughter more cruel than took place there in the marshes and woods, never were more intolerable insults inflicted by barbarians, especially those directed against the legal pleaders. They put out the eyes of some of them and cut off the hands of others; they sewed up the mouth of one of them after first cutting out his tongue, which one of the barbarians held in his hand, exclaiming *At last, you viper, you have ceased to hiss!*"

Florus on the loss of Varus' force^[269]

Further east, Trajan turned his attention to Dacia, an area north of Macedon and Greece and east of the Danube that had been on the Roman agenda since before the days of Caesar^{[270][271]} when they had beaten a Roman army at the Battle of Histria.^[272] In AD 85, the Dacians had swarmed over the Danube and pillaged Moesia^{[273][274]} and initially defeated an army the Emperor Domitian sent against them,^[275] but the Romans were victorious in the Battle of Tapae in AD 88 and a truce was drawn up.^[275]

Emperor Trajan recommenced hostilities against Dacia and, following an uncertain number of battles,^[276] defeated the Dacian general Decebalus in the Second Battle of Tapae in 101.^[277] With Trajan's troops pressing towards the Dacian capital Sarmizegethusa, Decebalus once more sought terms.^[278] Decebalus rebuilt his power over the following years and attacked Roman garrisons again in 105. In response Trajan again marched into Dacia,^[279] besieging the Dacian capital in the Siege of Sarmizethusa, and razing it to the ground.^[280] With Dacia quelled, Trajan subsequently invaded the Parthian empire to the east, his conquests taking the Roman Empire to its greatest extent. Rome's borders in the east were indirectly governed through a system of client states for some time, leading to less direct campaigning than in the west in this period.^[281]

The Armenian Kingdom between the Black Sea and Caspian Sea became a focus of contention between Rome and the Parthian Empire, and control of the region was repeatedly gained and lost. The Parthians forced Armenia into submission from AD 37^[282] but in AD 47 the Romans retook control of the kingdom and offered it client kingdom status. Under Nero, the Romans fought a campaign between AD 55 and 63 against the Parthian Empire, which had again invaded Armenia. After gaining Armenia once more in AD 60 and subsequently losing it again in AD 62, the Romans sent Gnaeus Domitius Corbulo in AD 63 into the territories of Vologases I of Parthia. Corbulo succeeded in returning Armenia to Roman client status, where it remained for the next century.

Year of the Four Emperors (69)

In 69 AD, Marcus Salvius Otho had the Emperor Galba murdered^{[283][284]} and claimed the throne for himself.^{[285][286]} However, Vitellius, governor of the province of Germania Inferior, had also claimed the throne^{[287][288]} and marched on Rome with his troops.^{[285][286]} Following an inconclusive battle near Antipolis,^[289] Vitellius' troops attacked the city of Placentia in the Assault of Placentia, but were repulsed by the Othonian garrison.^{[288][290]}

Otho left Rome on March 14, and marched north towards Placentia to meet his challenger. In the Battle of Locus Castrorum the Othonians had the better of the fighting,^[291] and Vitellius' troops retreated to Cremona. The two armies met again on the Via Postunia, in the First Battle of Bedriacum,^[292] after which the Othonian troops fled back to their camp in Bedriacum,^[293] and the next day surrendered to the Vitellian forces. Otho decided to commit suicide rather than fight on.^[294]

Meanwhile, the forces stationed in the Middle East provinces of Judaea and Syria had acclaimed Vespasian as emperor^[292] and the Danubian armies of the provinces of Raetia and Moesia also acclaimed Vespasian as emperor. Vespasian's and Vitellius' armies met in the Second Battle of Bedriacum,^{[292][295]} after which the Vitellian troops were driven back into their camp outside Cremona, which was taken.^[296] Vespasian's troops then attacked Cremona itself,^[297] which surrendered.

Under pretence of siding with Vespasian, Civilis of Batavia had taken up arms and induced the inhabitants of his native country to rebel.^{[292][298]} The rebelling Batavians were immediately joined by several neighbouring German tribes including the Frisii. These forces drove out the Roman garrisons near the Rhine and defeated a Roman army at the Battle of Castra Vetera, after which many Roman troops along the Rhine and in Gaul defected to the Batavian cause. However, disputes soon broke out amongst the different tribes, rendering co-operation impossible; Vespasian, having successfully ended the civil war, called upon Civilis to lay down his arms, and on his refusal his legions met him in force, defeating him^[274] in the Battle of Augusta Treverorum.

Jewish revolts (66–135)

The first Jewish-Roman War, sometimes called The Great Revolt, was the first of three major rebellions by the Jews of Judaea Province against the Roman Empire.^[299] Judaea was already a troubled region with bitter violence among several competing Jewish sects^[299] and a long history of rebellion^[300] The Jews' anger turned on Rome following robberies from their temples and Roman insensitivity – Tacitus says disgust and repulsion^[301] – towards their religion. The Jews began to prepare for armed revolt. Earlier successes including the repulse of the First Siege of Jerusalem^[302] and the Battle of Beth-Horon^[302] only attracted greater attention from Rome and Emperor Nero appointed general Vespasian to crush the rebellion. Vespasian led his forces in a methodical clearance of the areas in revolt. By the year 68, Jewish resistance in the North had been crushed. A few towns and cities held out for a few years before falling to the Romans, leading to the Siege of Masada in 73 AD^{[303][304]} and the Second Siege of Jerusalem.^[305]

In 115, revolt broke out again in the province, leading to the second Jewish-Roman war known as the Kitos War, and again in 132 in what is known as Bar Kokhba's revolt. Both were brutally crushed.

Struggle with Parthia (114–217)

By the 2nd century AD the territories of Persia were controlled by the Arsacid dynasty and known as the Parthian Empire. Due in large part to their employment of powerful heavy cavalry and mobile horse archers, Parthia was the most formidable enemy of the Roman Empire in the east. As early as 53 BC, the Roman general Crassus had invaded Parthia, but he was killed and his army was defeated at the Battle of Carrhae. In the years following Carrhae, the Romans were divided in civil war and hence unable to campaign against Parthia. Trajan also campaigned against the Parthians from 114–117 and briefly captured their capital Ctesiphon, putting the puppet ruler Parthamaspates on the throne. However, rebellions in Babylonia and the Jewish revolts in Judaea made it difficult to maintain the

captured province and the territories were abandoned.

A revitalised Parthian Empire renewed its assault in 161, defeating two Roman armies and invading Armenia and Syria. Emperor Lucius Verus and general Gaius Avidius Cassius were sent in 162 to counter the resurgent Parthia. In this war, the Parthian city of Seleucia on the Tigris was destroyed and the palace at the capital Ctesiphon was burned to the ground by Avidius Cassius in 164. The Parthians made peace but were forced to cede western Mesopotamia to the Romans.^[306]

In 197, Emperor Septimius Severus waged a brief and successful war against the Parthian Empire in retaliation for the support given to rival for the imperial throne Pescennius Niger. The Parthian capital Ctesiphon was sacked by the Roman army, and the northern half of Mesopotamia was restored to Rome.

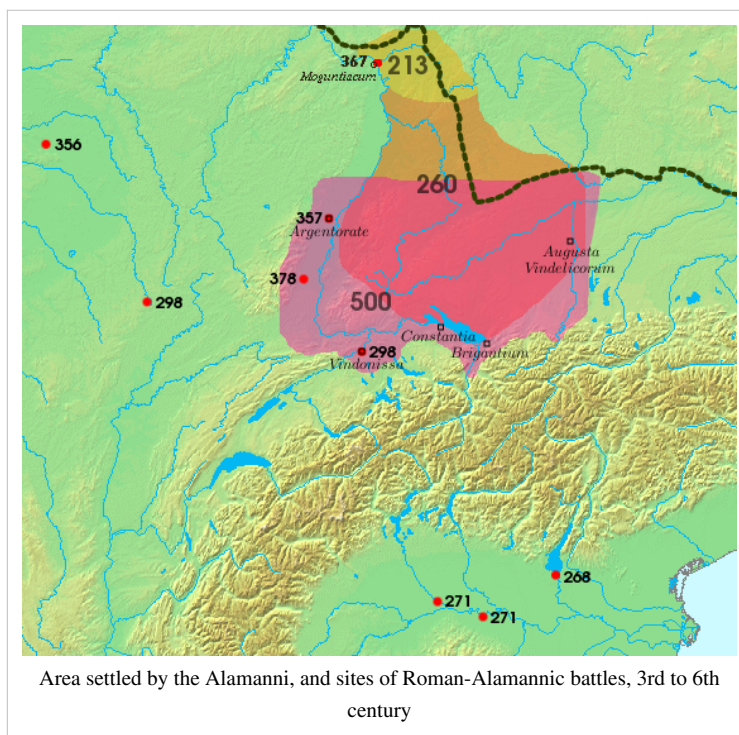
Emperor Caracalla, the son of Severus, marched on Parthia in 217 from Edessa to begin a war against them, but he was assassinated while on the march.^[307] In 224, the Parthian Empire was crushed not by the Romans but by the rebellious Persian vassal king Ardashir I, who revolted, leading to the establishment of Sassanid Empire of Persia, which replaced Parthia as Rome's major rival in the East.

Throughout the Parthian wars, tribal groups along the Rhine and Danube took advantage of Rome's preoccupation with the eastern frontier (and the plague that the Romans suffered from after bringing it back from the east) and launched a series of raids and incursions into Rome's territories, including the Marcomannic Wars.

Late (180 AD – 476 AD)

Migration period (163–378)

After Varus' defeat in Germania in the 1st century, Rome had adopted a largely defensive strategy along the border with Germania, constructing a line of defences known as *limes* along the Rhine. Although the exact historicity is unclear, since the Romans often assigned one name to several distinct tribal groups, or conversely applied several names to a single group at different times, some mix of Germanic peoples, Celts, and tribes of mixed Celto-Germanic ethnicity were settled in the lands of Germania from the 1st century onwards. The Cherusci, Bructeri, Tencteri, Usipi, Marsi, and Chatti of Varus' time had by the 3rd century either evolved into or been displaced by a confederacy or alliance of Germanic tribes collectively known as the Alamanni,^[308] first mentioned by Cassius Dio describing the campaign of Caracalla in 213.



In around 166 AD, several Germanic tribes pushed across the Danube, striking as far as Italy itself in the Siege of Aquileia in 166 AD,^[306] and the heartland of Greece in the Sack of Eleusis.^[306]

Although the essential problem of large tribal groups on the frontier remained much the same as the situation Rome faced in earlier centuries, the 3rd century saw a marked increase in the overall threat,^{[309][310]} although there is disagreement over whether external pressure increased,^[308] or Rome's ability to meet it declined.^[311] The Carpi and

Sarmatians whom Rome had held at bay were replaced by the Goths and likewise the Quadi and Marcomanni that Rome had defeated were replaced by the greater confederation of the Alamanni.^[312]

The assembled warbands of the Alamanni frequently crossed the *limes*, attacking Germania Superior such that they were almost continually engaged in conflicts with the Roman Empire, whilst Goths attacked across the Danube in battles such as the Battle of Beroa^[313] and Battle of Philippopolis in 250^[313] and the Battle of Abrittus in 251,^[313] and both Goths and Heruli ravaged the Aegean and, later, Greece, Thrace and Macedonia.^{[312][314]} However, their first major assault deep into Roman territory came in 268. In that year the Romans were forced to denude much of their German frontier of troops in response to a massive invasion by another new Germanic tribal confederacy, the Goths, from the east. The pressure of tribal groups pushing into the Empire was the end result of a chain of migrations with its roots far to the east.^[315] Huns from the Russian steppe attacked the Goths,^{[316][317][318]} who in turn attacked the Dacians, Alans and Sarmatians at or inside Rome's borders.^[319] The Goths first appeared in history as a distinct people in this invasion of 268 when they swarmed over the Balkan peninsula and overran the Roman provinces of Pannonia and Illyricum and even threatened Italia itself.

The Alamanni seized the opportunity to launch a major invasion of Gaul and northern Italy. However, the Visigoths were defeated in battle that summer near the modern Italian-Slovenian border and then routed in the Battle of Naissus^[320] that September by Gallienus, Claudius and Aurelian, who then turned and defeated the Alemanni at the Battle of Lake Benacus. Claudius' successor Aurelian defeated the Goths twice more in the Battle of Fanum Fortunae^[320] and the Battle of Ticinum.^[320] The Goths remained a major threat to the Empire but directed their attacks away from Italy itself for several years after their defeat. By 284 AD, Gothic troops were serving on behalf of the Roman military as federated troops.^[321]

The Alamanni on the other hand resumed their drive towards Italy almost immediately. They defeated Aurelian at the Battle of Placentia in 271 but were beaten back for a short time after they lost the battles of Fano and Pavia later that year. They were beaten again in 298 at the battles of Lingones and Vindonissa but fifty years later they were resurgent again, making incursions in 356 at the Battle of Reims,^[322] in 357 at the Battle of Strasbourg,^[323] in 367 at the Battle of Solicinium and in 378 at Battle of Argentovaria. In the same year the Goths inflicted a crushing defeat on the Eastern Empire at the Battle of Adrianople,^{[324][325]} in which the Eastern Emperor Valens was massacred along with tens of thousands of Roman troops.^[326]

At the same time, Franks raided through the North Sea and the English Channel,^[327] Vandals pressed across the Rhine, Iuthungi against the Danube, Iazyges, Carpi and Taifali harassed Dacia, and Gepids joined the Goths and Heruli in attacks round the Black Sea.^[328] At around the same time, lesser-known tribes such as the Bavares, Baquates and Quinquegentanei^[321] raided Africa.^[328]

At the start of the 5th century AD, the pressure on Rome's western borders was growing intense. However, it was not only the western borders that were under threat: Rome was also under threat both internally and on its eastern borders.

Usurpers (193–394)

A military that was often willing to support its commander over its emperor meant that commanders could establish sole control of the army they were responsible for and usurp the imperial throne. The so-called Crisis of the Third Century describes the turmoil of murder, usurpation and in-fighting that is traditionally seen as developing with the murder of the Emperor Alexander Severus in 235.^[329] However, Cassius Dio marks the wider imperial decline as beginning in 180 AD with ascension of Commodus to the throne,^[330] a judgement with which Gibbon concurred,^[331] and Matyszak states that "the rot ... had become established long before" even that.^[330]

Though the crisis of the 3rd century was not the absolute beginning of Rome's decline, nevertheless it did mark a severe strain on the empire as Romans waged war on one another as they had not done since the final days of the Republic. Within the space of a single century, twenty-seven military officers claimed themselves emperors and reigned over parts of the empire for months or days, all but two meeting with a violent end.^{[308][332]} The time was characterised by a Roman army that was as likely to be attacking itself as an outside invader, reaching a low point around 258 AD.^[333] Ironically, while it was these usurpations that led to the breakup of the Empire during the crisis, it was the strength of several frontier generals that helped reunify the empire through force of arms.

The situation was complex, often with 3 or more usurpers in existence at once. Septimius Severus and Pescennius Niger, both rebel generals promoted as emperors by the troops they commanded, clashed for the first time in 193 AD at the Battle of Cyzicus, in which Niger was defeated. However, it took two further defeats at the Battle of Nicaea later that year and the Battle of Issus the following year, for Niger to be definitively defeated. Almost as soon as Niger's hopes of the imperial crown had been laid to rest, Severus was forced to deal with another rival for the throne in the person of Clodius Albinus, who had originally been allied to Severus. Albinus was proclaimed emperor by his troops in Britain and, crossing over to Gaul, defeated Severus' general Virius Lupus in battle, before being in turn defeated and killed in the Battle of Lugdunum by Severus himself.

After this turmoil, Severus faced no more internal threats for the rest of his reign,^[334] and the reign of his successor Caracalla passed uninterrupted for a while until he was murdered by Macrinus,^[334] who proclaimed himself emperor in his place. Despite Macrinus having his position ratified by the Roman senate, the troops of Varius Avitus declared him to be emperor instead, and the two met in battle at the Battle of Antioch in 218 AD, in which Macrinus was defeated.^[335] However, Avitus himself – taking the imperial name Elagabalus – was murdered shortly afterwards^[335] and Alexander Severus was proclaimed emperor by both the Praetorian Guard and the senate who, after a short reign, was murdered in turn.^[335] His murderers were working on behalf of the army who were unhappy with their lot under his rule and who raised in his place Maximinus Thrax. However, just as he had been raised by the army, Maximinus was also brought down by them and despite winning the Battle of Carthage against the senate's newly-proclaimed Gordian II, he was murdered^[336] when it appeared to his forces as though he would not be able to best the next senatorial candidate for the throne, Gordian III.

Gordian III's fate is not certain, although he may have been murdered by his own successor, Philip the Arab, who ruled for only a few years before the army again raised a general to proclaimed emperor, this time Decius, who defeated Philip in the Battle of Verona to seize the throne.^[337] Several succeeding generals avoided battling usurpers for the throne chiefly by virtue of being murdered by their own troops before battle could commence, which at least relieved the empire momentarily of manpower losses to internal strife. The lone exception to this rule was Gallienus, emperor from 260 AD to 268 AD, who saw a remarkable array of usurpers, most of whom he defeated in pitched



The Battle of the Milvian Bridge by Giulio Romano (1499–1546)

battle. The army was therefore mostly spared further infighting until around 273 AD, when Aurelian defeated the Gallic usurper Tetricus in the Battle of Chalons. The next decade saw a barely credible number of usurpers, sometimes 3 at the same time, all vying for the imperial throne. Most of the battles are not recorded, primarily due to the turmoil of the time, until Diocletian, a usurper himself, defeated Carinus at the Battle of the Margus to become emperor.

Some small measure of stability again returned at this point, with the empire split into a Tetrarchy of two greater and two lesser emperors, a system that staved off civil wars for a short time until 312 AD. In that year, relations between the tetrarchy collapsed for good and Constantine I, Licinius, Maxentius and Maximinus jostled for control of the empire. In the Battle of Turin Constantine defeated Maxentius, and in the Battle of Tzirallum Licinius defeated Maximinus. From 314 AD onwards, Constantine defeated Licinius in the Battle of Cibalae, then the Battle of Mardia, and then again at the Battle of Adrianople, the Battle of the Hellespont and the Battle of Chrysopolis.

Constantine then turned to Maxentius, beating him in the Battle of Verona and the Battle of Milvian Bridge in the same year. Constantine's son Constantius II inherited his father's rule and later defeated the usurper Magnentius in first the Battle of Mursa Major and then the Battle of Mons Seleucus.

Successive emperors Valens and Theodosius I also defeated usurpers in, respectively, the Battle of Thyatira, and the battles of the Save and the Frigidus.

Struggle with the Sassanid Empire (230–363)

After overthrowing the Parthian confederacy,^{[308][338]} the Sassanid Empire that arose from its remains pursued a more aggressive expansionist policy than their predecessors^{[339][340]} and continued to make war against Rome. In 230 AD, the first Sassanid emperor attacked Roman territory first in Armenia and then in Mesopotamia^[340] but Roman losses were largely restored by Severus within a few years.^[339] In 243, Emperor Gordian III's army retook the Roman cities of Hatra, Nisibis and Carrhae from the Sassanids after defeating the Sassanids at the Battle of Resaena^[341] but what happened next is unclear: Persian sources claim that Gordian was defeated and killed in the Battle of Misikhe^[342] but Roman sources mention this battle only as an insignificant setback and suggest that Gordian died elsewhere.^[343]

Certainly, the Sassanids had not been cowed by the previous battles with Rome and in 253 the Sassanids under Shapur I penetrated deeply into Roman territory several times, defeating a Roman force at the Battle of Barbalissos^[343] and conquering and plundering Antiochia in 252 following the Siege of Antiochia.^{[338][343]} The Romans recovered Antioch by 253 AD,^[344] and Emperor Valerian gathered an army and marched eastward to the Sassanid borders. In 260 at the Battle of Edessa the Sassanids defeated the Roman army^[344] and captured the Roman Emperor Valerian.^{[338][340]}

By the late 3rd century Roman fortunes on the eastern frontier improved dramatically. During a period of civil upheaval in Persia, emperor Carus led a successful campaign into Persia essentially uncontested, sacking Ctesiphon in 283. During the reign of the Tetrarchy, emperors Diocletian and Galerius brought a decisive conclusion to the war, sacking Ctesiphon in 299 and expanding the Roman eastern frontier dramatically with the Treaty of Nisibis. The treaty brought lasting peace between Rome and the Sassanids for almost four decades until the end of Constantine the Great's reign. In 337, Shapur II broke the peace and began a twenty-six year conflict, attempting with little success to conquer Roman fortresses in the region. After early Sassanid successes including the Battle of Amida in 359 AD and the Siege of Pirisabora in 363 AD,^[345] Emperor Julian met Shapur in 363 in the Battle of Ctesiphon outside the walls of the Persian capital.^[345] The Romans were victorious but were unable to take the city, and were forced to retreat due to their vulnerable position in the middle of hostile territory. Julian was killed in the Battle of Samarra during the retreat, possibly by one of his own men.^[345]

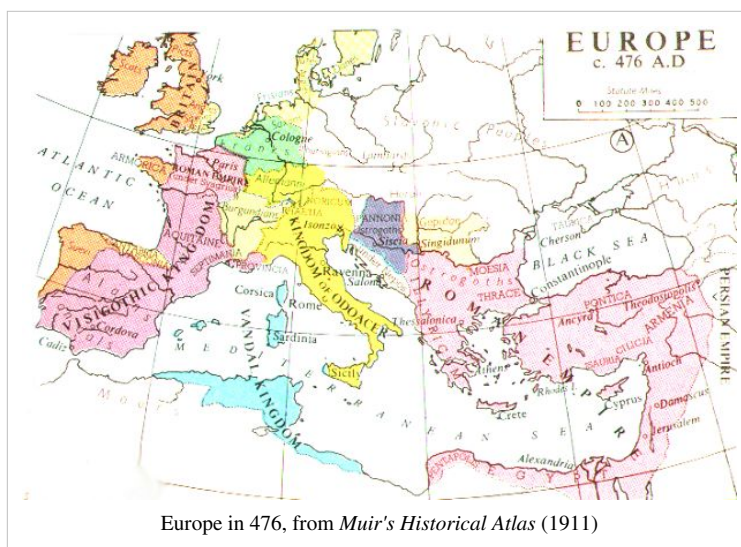
There were several future wars, although all brief and small-scale, since both the Romans and the Sassanids were forced to deal with threats from other directions during the 5th century. A war against Bahram V in 420 over the persecution of the Christians in Persia led to a brief war that was soon concluded by treaty and in 441 a war with

Yazdegerd II was again swiftly concluded by treaty after both parties battled threats elsewhere.^[346]

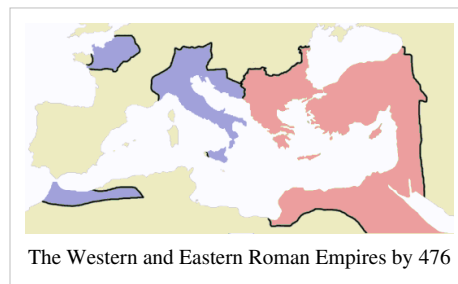
Collapse of the Western Empire (402–476)

Many theories have been advanced in explanation of the decline of the Roman Empire, and many dates given for its fall, from the onset of its decline in the 3rd century^[347] to the fall of Constantinople in 1453.^[348] Militarily, however, the Empire finally fell after first being overrun by various non-Roman peoples and then having its heart in Italy seized by Germanic troops in a revolt. The historicity and exact dates are uncertain, and some historians do not consider that the Empire fell at this point.

The Empire became gradually less Romanised and increasingly Germanic in nature: although the Empire buckled under Visigothic assault, the overthrow of the last Emperor Romulus Augustus was carried out by federated Germanic troops from within the Roman army rather than by foreign troops. In this sense had Odoacer not renounced the title of Emperor and named himself "King of Italy" instead, the Empire might have continued in name. Its identity, however, was no longer Roman – it was increasingly populated and governed by Germanic peoples long before 476. The Roman people were by the 5th century "bereft of their military ethos"^[349] and the Roman army itself a mere supplement to federated troops of Goths, Huns, Franks and others fighting on their behalf.



Europe in 476, from Muir's Historical Atlas (1911)



The Western and Eastern Roman Empires by 476

Rome's last gasp began when the Visigoths revolted around 395 AD.^[350] Led by Alaric I,^[351] they attempted to seize Constantinople,^[352] but were rebuffed and instead plundered much of Thrace in northern Greece.^{[351][353]} In 402 AD they besieged Mediolanum, the capital of Roman Emperor Honorius, defended by Roman Gothic troops. The arrival of the Roman Stilicho and his army forced Alaric to relieve the siege and move towards Hasta (modern Asti) in western Italy, where Stilicho attacked it at the Battle of Pollentia,^{[354][355]} capturing Alaric's camp. Stilicho offered to return the prisoners in exchange for the Visigoths returning to Illyricum but upon arriving at Verona, Alaric halted his retreat. Stilicho again attacked at the Battle of Verona^[356] and again defeated Alaric,^[357] forcing him to withdraw from Italy.

In 405 AD, the Ostrogoths invaded Italy itself, but were defeated. However, in 406 AD an unprecedented number of tribes took advantage of the freezing of the Rhine to cross *en masse*: Vandals, Suevi, Alans and Burgundians swept across the river and met little resistance in the Sack of Moguntiacum and the Sack of Treviri,^[358] completely overrunning Gaul. Despite this grave danger, or perhaps because of it, the Roman army continued to be wracked by usurpation, in one of which Stilicho, Rome's foremost defender of the period, was put to death.^[359]

It is in this climate that, despite his earlier setback, Alaric returned again in 410 and managed to sack Rome.^{[351][360][361]} The Roman capital had by this time moved to the Italian city of Ravenna,^[362] but some historians view 410 as an alternative date for the true fall of the Roman Empire.^[363] Without possession of Rome or many of its former provinces, and increasingly Germanic in nature, the Roman Empire after 410 had little in

common with the earlier Empire. By 410 AD, Britain had been mostly denuded of Roman troops,^{[364][365]} and by 425 AD was no longer part of the Empire,^[351] and much of western Europe was beset "by all kinds of calamities and disasters",^[366] coming under barbarian kingdoms ruled by Vandals, Suebians, Visigoths and Burgundians.^[367]

"The fighting became hand-to-hand, fierce, savage, confused and without the slightest respite.... Blood from the bodies of the slain turned a small brook which flowed through the plain into a torrent. Those made desperately thirsty by their injuries drank water so augmented with blood that in their misery it seemed as though they were forced to drink the very blood which had poured from their wounds"

Jordanes on the Battle of the Catalaunian Plains^[368]

The remainder of Rome's territory, if not its nature, was defended for several decades following 410 largely by Flavius Aëtius, who managed to play off each of Rome's barbarian invaders against one another. In 436 he led a Hunnic army against the Visigoths at the Battle of Arles, and again in 436 at the Battle of Narbonne. In 451 he led a combined army, including his former enemy the Visigoths, against the Huns at the Battle of the Catalaunian Plains,^{[369][370][371]} beating them so soundly that although they later sacked Concordia, Altinum, Mediolanum,^[372] Ticinum,^[372] and Patavium, they never again directly threatened Rome. Despite being the only clear champion of the Empire at this point Aëtius was slain by the Emperor Valentinian III's own hand, leading Sidonius Apollinaris to observe, "I am ignorant, sir, of your motives or provocations; I only know that you have acted like a man who has cut off his right hand with his left".^[373]

Carthage, the second largest city in the empire, was lost along with much of North Africa in 439 AD to the Vandals,^{[374][375]} and the fate of Rome seemed sealed. By 476, what remained of the Empire was completely in the hands of federated Germanic troops and when they revolted led by Odoacer and deposed Emperor Romulus Augustus^[376] there was nobody to stop them. Odoacer happened to hold the part of the Empire around Italy and Rome but other parts of the Empire were ruled by Visigoths, Ostrogoths, Franks, Alans and others. The Empire in the West had fallen,^{[367][376]} and its remnant in Italy was no longer Roman in nature. The Byzantine Empire and the Goths continued to fight over Rome and the surrounding area for many years, though by this point Rome's importance was negligible. Following years of grinding war the city was by 540 AD near-abandoned and desolate with much of its environment turned into an unhealthy marsh, an inglorious end for a city that once ruled much of the known world.

At this point in time, the Eastern Roman Empire stands alone, and events in Roman military history fall under the category of Byzantine military history.

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Structural history of the Roman military

The **structural history of the Roman military** concerns the major transformations in the organization and constitution of ancient Rome's armed forces, "the most effective and long-lived military institution known to history."^[1] From its origins around 800 BC to its final dissolution in AD 476 with the demise of the Western Roman Empire, Rome's military organization underwent substantial structural change. At the highest level of structure, the forces were split into the Roman army and the Roman navy, although these two branches were less distinct than in many modern national defense forces. Within the top levels of both army and navy, structural changes occurred as a result of both positive military reform and organic structural evolution. These changes can be divided into four distinct phases.

Phase I

The army was derived from obligatory annual military service levied on the citizenry, as part of their duty to the state. During this period, the Roman army would wage seasonal campaigns against largely local adversaries.

Phase II

As the extent of the territories falling under Roman control expanded and the size of the forces increased, the soldiery gradually became salaried professionals. As a consequence, military service at the lower (non-salaried) levels became progressively longer-term. Roman military units of the period were largely homogeneous and highly regulated. The army consisted of units of citizen infantry known as legions (Latin: *legiones*) as well as non-legionary allied troops known as *auxilia*. The latter were most commonly called upon to provide light infantry, logistical, or cavalry support.

Phase III

At the height of the Roman Empire's power, forces were tasked with manning and securing the borders of the vast provinces which had been brought under Roman control. Serious strategic threats were less common in this period and emphasis was placed on preserving gained territory. The army underwent changes in response to these new needs and became more dependent on fixed garrisons than on march-camps and continuous field operations.

Phase IV

As Rome began to struggle to keep control over its sprawling territories, military service continued to be salaried and professional for Rome's regular troops. However, the trend of employing allied or mercenary elements was expanded to such an extent that, these troops came to represent a substantial proportion of the armed forces. At the same time, the uniformity of structure found in Rome's earlier military disappeared. Soldiery of the era ranged from lightly armed mounted archers to heavy infantry, in regiments of varying size and quality. This was accompanied by a trend in the late empire of an increasing predominance of cavalry rather than infantry troops, as well as a requirement for more mobile operations.

Tribal forces (c. 800 BC – c. 578 BC)

According to the historians, Livy and Dionysius of Halicarnassus, writing at a far later date, the earliest Roman army existed in the 8th century BC. During this period Rome itself was probably little more than a fortified hilltop settlement and its army a relatively small force, whose activities were limited "*mainly [to] raiding and cattle rustling with the occasional skirmish-like battle*".^[2] Historian Theodor Mommsen referred to it as Rome's *curiate* army, named for its presumed subdivision along the boundaries of Rome's three founding tribes (Latin: *curiae*), the Ramnians, Tities and Luceres.^[3] This army's exact structure is not known, but it is probable that it loosely resembled a warrior band or group of bodyguards led by a chieftain or king^[4]. Mommsen believes that Roman military organization of this period was regimented by the "Laws of [the apocryphal] King [V]Italus"^[5] but these laws,

though referred to by Aristotle, have been lost.

The army (Latin: *legio*) consisted, according to Livy, of exactly 3,000 infantry and 300 horsemen, one third from each of Rome's three founding tribes.^[6] ^[7] Warriors served under six "leaders of division" (Latin: *tribuni*) who in turn served under a general, usually in the person of the reigning King. Mommsen uses philological arguments and references from Livy and others to suggest that the greater mass of foot-soldiers probably consisted of *pilumni* (javelin-throwers), with a smaller number possibly serving as *arquites* (archers).^[8] The cavalry was far smaller in number and probably consisted solely of the town's richest citizens.^[9] The army may also have contained the earliest form of chariots,^[10] hinted at by references to the *flexuntes* ("the wheelers").^[11]

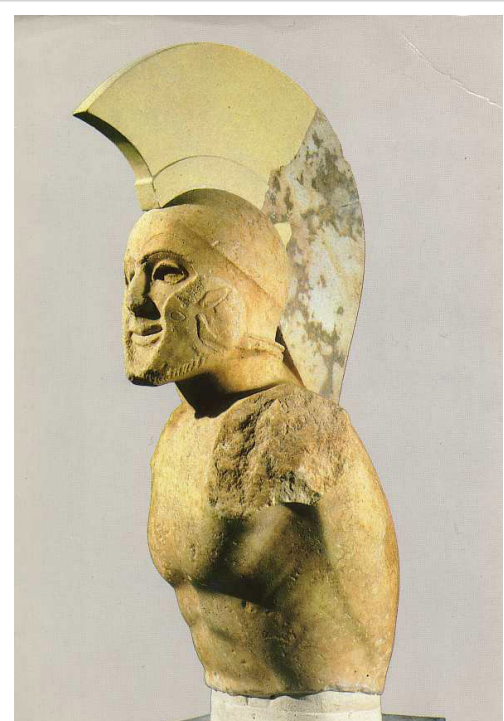
By the beginning of the 7th century BC, the Iron-Age Etruscan civilization (Latin: *Etrusci*) was dominant in the region.^[12] Like most of the other peoples in the region, the Romans warred against the Etruscans. By the close of the century, the Romans had lost their struggle for independence, and the Etruscans had conquered Rome, establishing a military dictatorship, or kingdom, in the city.

Etruscan-model hoplites (578 BC – c. 315 BC)

Although several Roman sources including Livy and Polybius talk extensively about the Roman army of the Roman Kingdom period that followed the Etruscan capture of the city, no contemporary accounts survive. Polybius, for example, was writing some 300 years after the events in question, and Livy some 500 years later. Additionally, what records were kept by the Romans at this time were later destroyed when the city was sacked. The sources for this period cannot therefore be seen as reliable, as they can be for later military history, e.g. from the First Punic War onwards.

According to our surviving narratives, the three kings of Rome during the Etruscan occupation were Tarquinius Priscus, Servius Tullius, and Tarquinius Superbus. During this period the army underwent a reformation into a *centuria* army based on socio-economic class.^[13] This reformation is traditionally attributed to Servius Tullius, the second of the Etruscan kings. Tullius had earlier carried out the first Roman census of all citizens.^[14] Livy tells us that Tullius reformed the army by transplanting onto it the structure derived originally for civil life as a result of this census.^[13] At all levels, military service was, at this time, considered to be a civic responsibility and a way of advancing one's status within society.^[15]

However, Rome's social classes were qualified rather than created by the census. It is perhaps more accurate to say therefore that the army's structure was slightly refined during this period rather than radically reformed. Prior to these reforms, the infantry was divided into the *classis* of rich citizens and the *infra classem* of poorer citizens. The latter were excluded from the regular line of battle on the basis that their equipment was of poor quality.^[16] During the reforms, this crude division of poorer and richer citizens was further stratified. The army thereafter consisted of a number of troop types based upon the social class of propertied citizens, collectively known as *adsidui*. From the poorest in the "fifth class" to the richest in the "first class" and the equestrians above them, military service was compulsory for all.^[17] However, Roman citizens at this time generally viewed military service as a proper undertaking of duty to the state, in contrast to later views of military service as an unwelcome and unpleasant



Ancient Greek sculpture of a hoplite (c. 5th century BC, Archaeological Museum of Sparta), on which Rome's first class of infantry was based.

burden.^[18] Whereas there are accounts of Romans in the late empire mutilating their own bodies in order to exempt themselves from military service,^[19] there seems to have been no such reluctance to serve in the military of early Rome. This may in part be due to the generally lower intensity of conflict in this era; to the fact that men were fighting close to and often in protection of their own homes, or due to—as posited by later Roman writers—a greater martial spirit in antiquity.^{[20] [21]}

The equestrians, the highest social class of all, served in mounted units known as *equites*. The first class of the richest citizens served as heavy infantry with swords and long spears (resembling hoplites), and provided the first line of the battle formation. The second class were armed similarly to the first class, but without a breastplate for protection, and with an oblong rather than a round shield. The second class stood immediately behind the first class when the army was drawn up in battle formation. The third and fourth classes were more lightly armed and carried a thrusting-spear and javelins. The third class stood behind the second class in battle formation, normally providing javelin support. The poorest of the propertied men of the city comprised the fifth class. They were generally too poor to afford much equipment at all and were armed as skirmishers with slings and stones. They were deployed in a screen in front of the main army, covering its approach and masking its manoeuvres.

Men without property, who were thereby excluded from the qualifying social classes of the *adsidui*, were exempted from military service on the grounds that they were too poor to provide themselves with any arms whatsoever.^[13] However, in the most pressing circumstances, even these *proletarii* were pressed into service,^[22] though their military worth was probably questionable. Troops in all of these classes would fight together on the battlefield, with the exception of the most senior troops, who were expected to guard the city.^[14]

The army is said to have increased from 3,000 to 4,000 men in the 5th century, and then again from 4,000 to 6,000 men sometime before 400 BC.^[9] This later army of 6,000 men were then divided into 60 *centuries* of 100 men each.^[23]

Manipular legion (315 BC – 107 BC)

The army of the early Republic continued to evolve, and although there was a tendency among Romans to attribute such changes to great reformers, it is more likely that changes were the product of slow evolution rather than singular and deliberate policy of reform.^[24] The manipular formation was probably copied from Rome's Samnite enemies to the south, perhaps as a result of Roman defeats in the Second Samnite War.^{[25][26]}

During this period, an army formation of around 5,000 men was known as a legion (Latin: *legio*). However, in contrast to later legionary formations of exclusively heavy infantry, the legions of the early and middle Republic consisted of both light and heavy infantry. The term *manipular army*, an army based on units called maniples (Latin *manipulus* singular, *manipuli* plural, from *manus*, "the hand"), is therefore used to contrast the later *legionary* army of the Empire that was based around a system of *cohort* units. The manipular army was based partially upon social class and partially upon age and military experience.^[27] It therefore represents a theoretical compromise between the earlier class-based army and the class-free armies of later years. In practice, even slaves were at one time pressed into the army of the Republic out of necessity.^[28] Normally a single legion was raised each year, but in 366 BC two legions were raised in a single year for the first time.^[9]

The manipular army got its name from the manner in which its heavy infantry was deployed. *Maniples* were units of 120 men each drawn from a single infantry class. The maniples were small enough to permit tactical movement of individual infantry units on the battlefield within the framework of the greater army. The maniples were typically deployed into three discrete lines (Latin: *triplex acies*) based on the three heavy infantry types of *hastati*, *principes* and *triarii*.^[29] The first type, the *hastati*, typically formed the first rank in battle formation. Each *hastati* manipule was formed 40 men across by three men deep.^[30] They were leather-armoured infantry soldiers who wore a brass cuirass and brass helmet adorned with three feathers approximately 30 cm (12 in) in height and carried an iron-clad wooden shield, 120 cm (4 ft) tall and a convex rectangle in shape. They were armed with a sword known as a *gladius* and two throwing spears known as *pila*: one the heavy *pilum* of popular imagination and one a slender javelin.^[31]

"the Romans... habitually enroll four legions each year, each consisting of about four thousand foot and two hundred horse; and when any unusual necessity arises, they raise the number of foot to five thousand and of the horse to three hundred. Of allies, the number in each legion is the same as that of the citizens, but of the horse three times as great"

Polybius, *The Histories*, 1:268–70

The second type, the *principes*, typically formed the second rank of soldiers back from the front of a battle line. They were heavy infantry soldiers armed and armoured as per the *hastati*, except that they wore a lighter coat of mail rather than a solid cuirass.^[31] Each *principes* manipule was formed 12 men across by 10 men deep.^[30] The *triarii*, who typically formed the third rank when the army was arrayed for battle, were the last remnant of hoplite-style troops in the Roman army. They were armed and armoured as per the *principes*, with the exception that they carried a pike rather than two *pila*.^[31] A *triarii* manipule was divided into two formations each six men across by 10 men deep.^[30] A manipular legion typically contained 1,200 *hastati*, 1,200 *principes* and 600 *triarii*.^[32] The three classes of unit may have retained some slight parallel to social divisions within Roman society, but at least officially the three lines were based upon age and experience rather than social class. Young, unproven men would serve as *hastati*, older men with some military experience as *principes*, and veteran troops of advanced age and experience as *triarii*.

The heavy infantry of the maniples were supported by a number of light infantry (Latin: *velites*) and cavalry (Latin: *equites*) troops, typically 300 horsemen per manipular legion.^[29] The cavalry was drawn primarily from the richest class of equestrians, but additional cavalry and light infantry were drawn at times from the *socii* and *Latini* of the Italian mainland. The *equites* were still drawn from the wealthier classes in Roman society. There was an additional class of troops (Latin: *accensi*, also *adscripticii* and later *supernumerarii*) who followed the army without specific martial roles and were deployed to the rear of the *triarii*. Their role in accompanying the army was primarily to supply any vacancies that might occur in the maniples, but they also seem to have acted occasionally as orderlies to the officers.

The light infantry of 1,200 *velites*^[29] consisted of unarmoured skirmishing troops drawn from the youngest and lower social classes. They were armed with a sword and buckler (90 cm (3 ft) diameter), as well as several light javelins, each with a 90 cm (3 ft) wooden shaft the diameter of a finger, with a c. 25 cm (10 in) narrow metal point.^[31] Their numbers were swollen by the addition of allied light infantry and irregular *rorarii*.

The Roman levy of 403 BC was the first to be requested to campaign for longer than a single season,^[33] and from this point on such a practice became gradually more common, if still not typical.

A small navy had operated at a fairly low level after the Second Samnite War, but it was massively upgraded during this period, expanding from a few primarily river- and coastal-based patrol craft to a full maritime unit. After a period of frenetic construction, the navy mushroomed to a size of more than 400 ships on the Carthaginian pattern. Once completed, it could accommodate up to 100,000 sailors and embarked troops for battle. The navy thereafter declined in size. This was partially because a pacified Roman Mediterranean called for little naval policing, and partially because the Romans chose to rely during this period on ships provided by Greek cities, whose peoples had greater maritime experience.^[34]

Proletarianisation of the infantry (217 BC – 107 BC)

The extraordinary demands of the Punic Wars, in addition to a shortage of manpower, exposed the tactical weaknesses of the manipular legion, at least in the short term.^[35] In 217 BC, Rome was forced to effectively ignore its long-standing principle that its soldiers must be both citizens and property owners when slaves were pressed into naval service;^[28] around 213 BC, the property requirement was reduced from 11,000 to 4,000 asses.^[28] Since the Romans are unlikely to have preferred to employ slaves over poor citizens in their armies,^[22] it must be assumed that, at this point, the *proletarii* of the poorest citizens must also have been pressed into service despite their lack of legal qualification. By 123 BC, the financial requirement for military service was slashed again from 4,000 asses to

just 1,500 asses.^[36] By this time, therefore, it is clear that many of the property-less former *proletarii* had been nominally admitted into the *adsidui*.^[36]

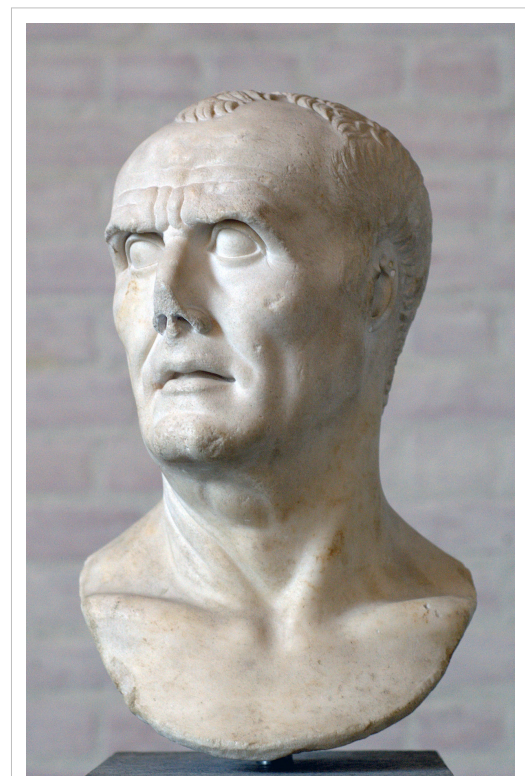
During the 2nd century BC, Roman territory saw an overall decline in population,^[37] partially due to the huge losses incurred during various wars. This was accompanied by severe social stresses and the greater collapse of the middle classes into lower classes of the census and the *proletarii*.^[37] As a result, both the Roman society and its military became increasingly proletarianised. The Roman state was forced to arm its soldiers at the expense of the state, since many of the soldiers who made up its lower classes were now impoverished *proletarii* in all but name, and were too poor to afford their own equipment.^[37]

The distinction between the heavy infantry types of *hastati*, *principes* and *triarii* began to blur, perhaps because the state was now assuming the responsibility of providing standard-issue equipment to all but the first class of troops, who alone were able to afford their own equipment.^[37] By the time of Polybius, the *triarii* or their successors still represented a distinct heavy infantry type armed with a unique style of cuirass, but the *hastati* and *principes* had become indistinguishable.^[37]

In addition, the shortage of available manpower led to a greater burden being placed upon its allies (*socii*) for the provision of allied troops.^[38] Where accepted allies could not provide the required force types, the Romans were not averse during this period to hiring mercenaries to fight alongside the legions.^[39]

Marian legion (107 BC – 27 BC)

In a process known as the Marian reforms, Roman consul Gaius Marius carried out a programme of reform of the Roman military.^[28] In 107 BC, all citizens, regardless of their wealth or social class, were made eligible for entry into the Roman army.^[40] This move formalised and concluded a gradual process that had been growing for centuries, of removing property requirements for military service.^[41] The distinction between *hastati*, *principes* and *triarii*, which had already become blurred, was officially removed,^{[29][42]} and the legionary infantry of popular imagination was created. Legionary infantry formed a homogeneous force of heavy infantry. These legionaries were drawn from citizen stock; by this time, Roman or Latin citizenship had been regionally expanded over much of ancient Italy and Cisalpine Gaul.^[43] Lighter citizen infantry, such as the *velites* and *equites*, were replaced by non-citizen *auxilia* that could consist of foreign mercenaries.^[44] Due to the concentration of the citizen legions into a force of heavy infantry^[32] Rome's armies depended on auxiliary cavalry attachments for support. As a tactical necessity, legions were almost always accompanied by an equal or greater number of lighter auxiliary troops,^[45] which were drawn from the non-citizens of the Empire's territories. One known exception of legions being formed from non-citizen provinces during this period was the legion that was raised in the province of Galatia.^[43]



Bust of Marius, instigator of the Marian reforms

After Marius, the legions were drawn largely from volunteer citizens rather than citizens conscripted for duty.^[46] Volunteers came forward and were accepted not from citizens of the city of Rome itself but from the surrounding countryside and smaller towns falling under Roman control.^[47] Whereas some long-term military professionals were classed as veterans, they were outnumbered by civilians with limited military experience who were in active service

perhaps only for a few campaigns.^[48] The legions of the late Republic remained, unlike the legions of the later Empire, predominantly Roman in origin, although some small number of ex-auxiliary troops were probably incorporated.^[49] The army's higher-level officers and commanders were still drawn exclusively from the Roman aristocracy.^[47]

Unlike earlier in the Republic, legionaries were no longer fighting on a seasonal basis to protect their land.^[50] Instead, they received standard pay, and were employed by the state on a fixed-term basis. As a consequence, military duty began to appeal most to the poorest sections of society, to whom a guaranteed salary was attractive.^[51] The army therefore consisted of a far higher proportion of the poor—particularly the rural poor—than it had previously.^[52] A destabilising consequence of this development was that the proletariat "acquired a stronger and more elevated position"^[51] within the state. This professionalisation of the military was necessary to provide permanent garrisons for newly acquired and distant territories such as Hispania, something not possible under an army of seasonal citizen militia.

Historian R. E. Smith notes that there was a need to raise additional legions in an emergency to repel specific strategic threats. He argues that this may have resulted in two types of legion.^[53] Long-standing legions deployed overseas were probably professional troops forming a standing army. Quickly-formed new legions, in contrast, consisted of younger men, perhaps with little or no military experience, who hoped for adventure and plunder.^[53] However, no distinction in basic pay, discipline or armour is known of between the two types of legion. The practice of veteran troops signing up again voluntarily into newly raised legions must have meant that no one army conformed exactly to one or other of these theoretical archetypes.

The legions of the late Republic were, structurally, almost entirely heavy infantry. The legion's main sub-unit was called a *cohort* and consisted of approximately 480 infantrymen.^[54] The cohort was therefore a much larger unit than the earlier *maniple* sub-unit, and was divided into six *centuriae* of 80 men each.^[54] Each *centuria* was separated further into 10 "tent groups" (Latin: *contubernia*) of 8 men each. Legions additionally consisted of a small body, typically 120 men, of Roman legionary cavalry (Latin: *equites legionis*). The *equites* were used as scouts and dispatch riders rather than battlefield cavalry.^[55] Legions also contained a dedicated group of artillery crew of perhaps 60 men, who would operate devices such as *ballistae*.^[54]

Each legion was normally partnered with an approximately equal number of allied (non-Roman) *auxiliae* troops.^[56] The addition of allied troops to the Roman army was a formalisation of the earlier arrangement of using light troops from the *Socii* and *Latini*, who had received Roman citizenship after the Social War.^[57] Auxiliary troops could be formed from either auxiliary light cavalry known as *alae*, auxiliary light infantry known as *cohors auxiliae*, or a flexible mixture of the two known as *cohors equitata*.^[56] Cavalry types included mounted archers (Latin: *sagittarii*), heavy shock cavalry (Latin: *cataphracti* or *clibanarii*), or lancers (Latin: *antesignani* or *lancearii*). Infantry could be armed with bows, slings, throwing spears, long swords, or thrusting spears. Auxiliary units were originally led by their own chiefs, and, in this period, their internal organisation was left to their commanders.^[58]

However, "the most obvious deficiency" of the Roman army remained its shortage of cavalry, especially heavy cavalry;^[59] even auxiliary troops were predominantly infantry. Luttwak argues that auxiliary forces largely consisted of Cretan archers, Balearic slingers and Numidian infantry, all of whom fought on foot.^[60] As Rome's borders expanded and its adversaries changed from largely infantry-based to largely cavalry-based troops, the infantry-based Roman army began to find itself at a tactical disadvantage, particularly in the East.

After having declined in size following the subjugation of the Mediterranean, the Roman navy underwent short-term upgrading and revitalisation in the late Republic to meet several new demands. Under Caesar, an invasion fleet was assembled in the English Channel to allow the invasion of Britain; under Pompey, a large fleet was raised in the Mediterranean Sea to clear the sea of Cilician pirates.^[34] During the civil war that followed, as many as a thousand ships were either constructed or pressed into service from Greek cities.^[34]

Non-citizen recruitment (49 BC – 27 BC)

By the time of Julius Caesar in 54 BC, regular legionary units were supplemented by *exploratores*, a body of scouts, and *speculatores*, spies who infiltrated enemy camps.^[61] Due to the demands of the civil war, the extraordinary measure of recruiting legions from non-citizens was taken by Caesar in Transalpine Gaul (Latin: *Gallia Transalpina*), by Brutus in Macedonia, and by Pompey in Pharsalus.^[62] This irregular and extraordinary recruitment was not, however, typical of recruitment during this period, and Roman law still officially required that legions were recruited from Roman citizens only.

Imperial legions and reformation of the auxilia (27 BC – 117 AD)

By the turn of the millennium, Emperor Augustus' primary military concern was to prevent Roman generals from further usurping the imperial throne.^[63] The experience of Caesar and, earlier, Marius and Sulla, had demonstrated the willingness of "emergency" (re-activated previously decommissioned) legions containing troops keen for plunder to follow their generals against the state. Augustus therefore removed the need for such emergency armies by increasing the size of the standing armies to a size sufficient to provide territorial defence on their own.^[64] Perhaps due to similar concerns, the legions and auxiliaries of the army were supplemented under the Emperor Augustus by an elite formation of guards dedicated to the protection of the Emperor. The first such unit was based in Rome and were known as the Praetorian Guard, and a second similar formation were known as the *Cohortes urbanae*.^[65]



Marble bas-relief carving of soldiers of the Praetorian Guard of Augustus, c. 1st century AD

The legions, which had been a mix of life professionals and civilian campaigners, was altered into a standing army of professionals only.^[66] The actual structure of the cohort army remained much the same as in the late Republic, although around the 1st century AD the first cohort of each legion was increased in size to a total of 800 soldiers.^[67] However, while the structure of the legions remained much the same, their make-up gradually changed. Whereas early Republican legions had been raised by a draft from eligible Roman citizens, imperial legions were recruited solely on a voluntary basis and from a much wider base of manpower. Likewise, whereas Republican legions had been recruited almost exclusively in Italy, early Imperial legions drew most of their recruits from Roman colonies in the provinces from 68 AD onwards. One estimate places the proportion of Italian troops at 65% under Augustus in c. 1 AD, falling to around 49% by the end of Nero's reign.^[68]



Bas-relief carving of a Roman legionary out of battle dress, c. 1st century AD (Pergamon Museum, Berlin)

Since the legions were officially open only to Roman citizens, Max Cary and Howard Hayes Scullard argue that at least in some provinces at this time "many provincials must have been recruited who lacked any genuine claim to Roman citizenship but received it unofficially on enlistment,"^[69] a practice that was to increase in the 2nd century.^[70] This is most likely in those provinces where the pool of Roman citizens was not large enough to fulfill the provincial army's recruitment needs. One possible example is Britain, where one estimate puts the citizen pool in the 1st century at only 50,000 out of a total provincial population of around two million.^[71]

At the same time as the legions underwent these transformations, the *auxilia* were reorganized and a number of allied troops were formalised into standing units similar to legions. Rather than being raised re-actively when required, the process of raising auxiliary troops was carried out in advance of conflicts according to annual targets.^[72] Whereas the internal organisation of the *auxilia* had previously been left up to their commanders, in the early empire they were organised into standardised units known

as *turmae* (for cavalry *alae*) and *centuriae* (for infantry *cohortes*).^[58] Although never becoming as standardised in their equipment as the legions,^[73] and often retaining some national flavour, the size of the units at least was standardised to some degree. Cavalry were formed into either an *ala quingenaria* of 512 horsemen, or an *ala millaria* of 1,000 horsemen.^[56] Likewise, infantry *auxilia* could be formed into a *cohors quingenaria* of 500 men or a *cohors millaria* of 1,000 men.^[56] Mixed cavalry/infantry auxiliaries were typically formed with a larger proportion of foot than horse troops: the *cohors equitata quingenaria* consisted of 380 foot and 120 horsemen, and the *cohors equitata millaria* consisted of 760 foot and 240 horsemen.^[56]

The vitality of the empire at this point was such that the use of native *auxilia* in the Roman army did not apparently barbarise the military as some scholars claim was to happen in the late empire.^[74] On the contrary, those serving in the *auxilia* during this period frequently strove to Romanise themselves. They were granted Roman citizenship on retirement, granting them several social advantages, and their sons became eligible for service in the legions.^[75]

As with the army, many non-Italians were recruited into the Roman Navy, partly because the Romans had never readily taken to the sea. It appears that the navy was considered to be slightly less prestigious than the *auxilia* but, like the *auxilia*, troops could gain citizenship on discharge upon retirement. In terms of structure, each ship was staffed by a group of men approximately equivalent to a century, with ten ships forming a naval squadron.^[76]

Introduction of vexillationes (76 AD – 117 AD)

By the final years of the 1st century AD, the legions remained the backbone of the Roman army, although the *auxilia* in fact outnumbered them by up to half as much again.^[77] Within the legions, the proportion of troops recruited from within Italy fell gradually after 70 AD.^[78] By the close of the 1st century, this proportion had fallen to as low as 22 percent, with the remainder drawn from conquered provinces.^[68] Since technically only citizens were allowed to enlist in the legions, where recruits did not possess citizenship then, at least in some instances, citizenship "*was simply given [to] them on enlistment*".^[79]

During this time, the borders of the Empire had remained relatively fixed to the extent originally reached under the Emperor Trajan. Because of this, the army was increasingly responsible for protecting existing frontiers rather than expanding into foreign territory, the latter of which had characterised the army's earlier existence.^[80] As a result, legions became stationed in largely fixed locations. Although entire legions were occasionally transferred into theatres of war, they remained largely rooted in one or more legionary bases in a province, detaching into smaller bodies of troops (Latin: *vexillationes*) on demand.^[81] This policy eventually led to a split of the military's land-based forces into mobile and fixed troops in the later Empire. In general, the best troops were dispatched as *vexillationes*, and the remainder left to guard border defences were of lower quality, perhaps those with injuries or near retirement.^[82]



Roman soldiers of around 101 AD from a cast of Trajan's column, c. 113 AD (Victoria and Albert Museum, London)

Barbarisation of the army (117 AD – 253 AD)



Late second-century Roman soldiers battling Germanic troops, as depicted on a contemporary Roman sarcophagus, c. 190 AD (National Museum of Rome, Rome).

By the time of the emperor Hadrian the proportion of Italians in the legions had fallen to just ten percent^[68] and provincial citizens now dominated. This low figure is probably a direct result of the changing needs of military staffing: a system of fixed border defences (Latin: *limes*) were established around the Empire's periphery under Hadrian, consolidating Trajan's territorial gains. These called for troops to be stationed permanently in the provinces, a prospect more attractive to locally-raised rather than Italian troops.^[83] The higher prestige and pay to be found in the Italian dominated Praetorian Guard must also have played a role. The majority of the troops in the legions at the start of the 3rd century AD were from the more Romanised (though non-Italian) provinces, especially Illyria.^[84]

As the century progressed, more and more barbarians (Latin: *barbari*) were permitted to settle inside of, and tasked with aiding in the defence of, Rome's borders.^[85] As a result, greater numbers of barbarous and semi-barbarous peoples were gradually admitted to the army.^[84]

However, whether this regionalisation of the legions was partnered by a drop in the professionalism of the troops is contested. Antonio Santosuosso argues that the strict discipline and high motivation of the days of Marius had lapsed,^[86] but Andrew Alföldi states that the Illyrian troops were both valiant and warlike,^[84] and Tacitus described German recruits as being natural mercenaries (Latin: *vivi ad arma nati*).^[87] It seems that discipline in the legions did slacken, with soldiers granted permission to live with wives outside of military lodgings and permitted to adopt a more lavish and comfortable lifestyle, in contrast to the strict military regimen of earlier years.^[86]



Third-century Roman soldiers battling Gothic troops, as depicted on a contemporary Roman sarcophagus, c. 250 AD (National Museum of Rome, Rome).

However, it is by no means certain that this led to any reduction in the effectiveness of the legions, due to the greater ferocity and stature of the *barbari* recruits. The flavour of the Roman military, however, was now dictated by the increasing number of regional recruits, leading to a partial barbarisation of Rome's military forces beginning in this period.^[88] The barbarisation of the lower ranks was paralleled by a concurrent barbarisation of its command structure, with the Roman senators who had traditionally provided its commanders becoming entirely excluded from the army. By 235 AD the Emperor himself, the figurehead of the entire military, was a man born outside of Italy to non-Italian parents.^[89]

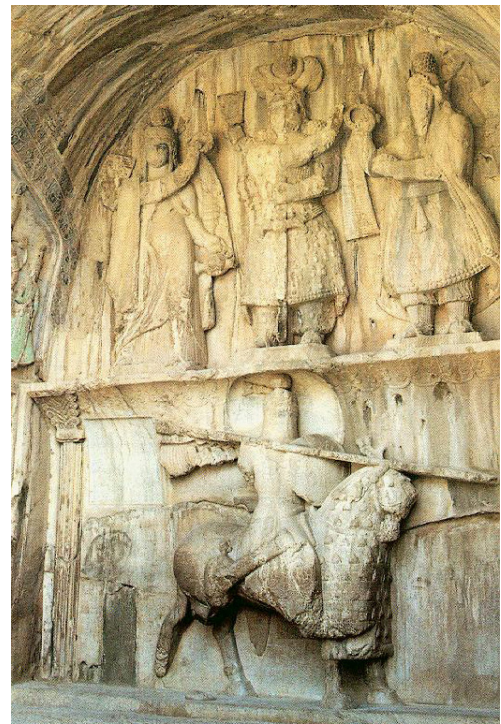
"A young nobleman, strong of hand and quick of mind and far more intelligent than your average barbarian... the ardour of his face and eyes showed the burning spirit within. He had fought on our side in previous campaigns and earned the right to become a Roman citizen; indeed, he was even elevated to the rank of Equestrian."

Velleius Paterculus, Roman History, 2.108

The gradual inclusion of greater numbers of non-citizen troops into the military was taken a further step by the creation under Hadrian of a new type of force in addition to the legions and *auxilia*, known as *numeri*.^[80] Formed in bodies of around 300 irregular troops,^[56] the *numeri* were drawn from subjugate provinces and peoples of client-states or even from beyond the borders of the empire. They were both less regimented and less Romanised than auxiliary troops, with a "pronounced national character,"^[90] including native dress and native war cries.^[74] The introduction of the *numeri* was a response to the need for cheap troops, who were nevertheless fierce and provided a force balance of light infantry and cavalry.^[91] They were therefore largely less well armed and less well trained than *auxilia* or legions,^[80] although more prestigious elite irregular native troops were also utilised.^[92] However, the legions still made up around one half of the Roman army at this point.^[84]

Successive crises (238 AD– 359 AD)

By the late Empire, enemy forces in both the East and West were "sufficiently mobile and sufficiently strong to pierce [the Roman] defensive perimeter on any selected axis of penetration";^[93] from the 3rd century onwards, both Germanic tribes and Persian armies pierced the frontiers of the Roman Empire.^[94] In response, the Roman army underwent a series of changes, more organic and evolutionary than the deliberate military reforms of the Republic and early Empire. A stronger emphasis was placed upon ranged combat ability of all types, such as field artillery, hand-held *ballistae*, archery and darts. Roman forces also gradually became more mobile, with one cavalryman for every three infantryman, compared to one in forty in the early Empire.^[95] Additionally, the Emperor Gallienus took the revolutionary step of forming dedicated cavalry regiments, separating them from the mixed cavalry and infantry regiments of the past.^[96] A diverse range of cavalry regiments existed, including *catafractarii* or *clibanarii*, *scutarii*, and legionary cavalry known as *promoti*. Collectively, these regiments were known as *equites*.^[92] Around 275 AD, the proportion of *catafractarii* was also increased.^[92] There is some disagreement over exactly when the relative proportion of cavalry increased, whether Gallienus' reforms occurred contemporaneously with an increased reliance on cavalry, or whether these are two distinct events. Alföldi appears to believe that Gallienus' reforms were contemporaneous with an increase in cavalry numbers. He argues that, by 258, Gallienus had made cavalry the predominant troop type in the Roman army in place of heavy infantry, which dominated earlier armies.^[92] According to Warren Treadgold, however, the proportion of cavalry did not change between the early 3rd and early 4th centuries.^[97]



A 6th-century carving of a Sassanid armoured knight, the model for the Roman *catafractarii*

Larger groups of *barbari* began to settle in Rome's territories around this time, and the troops they were contracted to provide to the Roman army were no longer organised as *numeri* but rather were the forerunners of the later rented native armies known as federated troops (Latin: *foederati*).^[98] ^[99] Though they served under Roman officers, the troops of these units were far more barbarised than the *numeri*, lacked Romanisation of either military structure or personal ideology, and were ineligible for Roman citizenship upon discharge.^[99] These native troops were not permitted to fight in native war bands under their own leaders, unlike the later *foederati*; instead, these troops were split into small groups attached to other Roman units.^[100] They existed therefore as a halfway house between *numeri*, who were encouraged to be Romanised, and the *foederati*, who raised officers from their own ranks and were almost entirely self-dependent.

Comitatenses and limitanei (284 AD – 395 AD)



Bearded Roman troops as pictured on a triumphal arch,
c. 312 AD

A distinction between frontier guard troops and more mobile reserve forces had emerged with the use of certain troops to permanently man frontiers such as Hadrian's Wall in *Britannia* in the 2nd century AD, and may have extended as far back as the late Republic's use of "provincial" and "emergency" legions. By the late Empire the competing demands of manned frontiers and strategic reserve forces had led to a division of the military into four types of troops. Border fortifications were manned by a "settled and hereditary"^[84] militia (Latin: *limitanei* or *riparienses*) that were "tied to their posts".^[101] In the rear lay more mobile troops in field armies known as the *comitatenses*, which were held in strategic reserve.^[102] Somewhere between the two were more local provincial reserves known as *cunei* (cavalry) and *auxilia* (by this time, referring to infantry alone) that may have evolved from earlier auxiliary cavalry units.^[103] From the time of the emperor Constantine I there were also two small central reserves (Latin: *scholae*) held to the strategic rear even of the *comitatenses*, one each in the presence of the emperors of West and East respectively.^[104] Created and expanded from the core troops of the Emperor's personal bodyguards, the central field armies by 295 AD seem to have been too large to be accounted for as simple bodyguard forces, but were still too small to be able

to campaign independently of legionary or vexillation support.^[105]

Of the four troop types, the *limitanei* (border guards) are generally considered to have been of the lowest quality,^[106] consisting largely of peasant-soldiers that were both "grossly inferior" to the earlier legions and inferior also to their counterparts in the mobile field armies.^[107]

While the *limitanei* were supposed to deal with policing actions and low-intensity incursions, the duty of responding to more serious incidents fell upon the provincial troops. The countering of the very largest scale incursions on a strategic scale was the task of the *comitatenses* or mobile field troops, possibly accompanied by the emperor's *scholae*. Both border and field armies consisted of a mix of infantry and cavalry units^[108] although the weight of cavalry was, according to some authorities, greater in the mobile field armies.^[104] Overall, approximately one quarter of the army consisted of cavalry troops^[109] but their importance is uncertain. Older works such as the Eleventh Edition of the *Encyclopædia Britannica* (1911) state that the Roman military of the late Empire was "marked by that predominance of the horseman which characterised the earlier centuries of the Middle Ages,"^[1] but many more recent authors believe that the infantry remained predominant.^[110]

There is some dispute about whether this new military structure was put into place under the Emperor Diocletian or Constantine since both reorganised the Roman Army in the late 3rd and early 4th centuries to some degree.^[111] Both Diocletian and even his predecessor of thirty years Gallienus may already have controlled mobile strategic reserves to assist the empire's border forces;^[112] either Diocletian or Constantine expanded this nascent force into permanent field armies.^[113]

Recruitment from amongst Roman citizens had become greatly curtailed as a consequence of a declining population,^[114] "cripplingly numerous" categories of those exempted from military service and the spread of Christianity with its pacifist message.^[115] ^[116] Together, these factors culminated in "the withdrawal of the urban class from all forms of military activity."^[117] In their place, much of Rome's military were now recruited from

non-Italian peoples living within the empire's borders. Many of these people were barbarians or semi-barbarians recently settled from lands beyond the empire,^[118] including several colonies of *Carpi*, *Bastarnae* and *Sarmatians*.^[119]

Although units described as *legiones* existed as late as the 5th century in both the border and field armies,^[120] the legionary system was very different from that of the principate and early empire. Since the term legion continued to be used, it is unclear exactly when the structure and role of the legions changed. In the third or 4th century, however, the legions' role as elite heavy infantry was substantially reduced^[121] and may have evaporated entirely.^[122] Instead, those "legions" that remained were no longer drawn exclusively (and perhaps hardly at all) from Roman citizens.^[108] Either Diocletian^[123] or Constantine reorganised the legions into smaller infantry units^[108] who, according to some sources, were more lightly armoured than their forebears.^[121] Their lighter armament may have been either because they "would not consent to wear the same weight of body armour as the legionaries of old"^[124] or, as in at least one documented instance, because they were prohibited from wearing heavy armour by their general in order to increase their mobility.^[125] 4th-century legions were at times only one sixth the size of early imperial legions, and they were armed with some combination of spears, bows, slings, darts and swords, reflecting a greater contemporary emphasis on ranged fighting.^[126] The *auxilia* and *numeri* had also largely disappeared.^[127] Constantine further increased the proportion of German troops in the regular army;^[128] their cultural impact was so great that even legionaries began wearing German dress.^[117] At the start of Diocletian's reign, the Roman army numbered about 390,000 men, but by the end of his reign he successfully increased the number to 581,000 men.^[129]

Adoption of barbarian allies (358 AD – 395 AD)

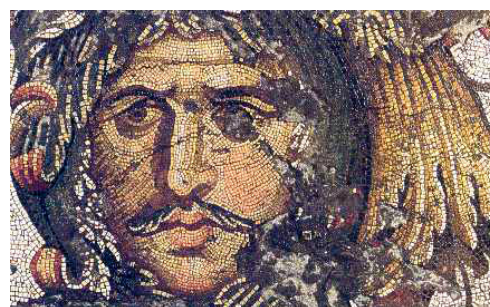
By the late 4th century, the Empire had become chronically deficient in raising sufficient troops from amongst its own population.^[130] As an alternative, taxation raised internally was increasingly used to subsidise growing numbers of barbarian recruits. The Romans had, for some time, recruited individual non-Roman soldiers into regular military units. In 358 AD, this practice was accelerated by the wholesale adoption of the entire Frankish people into the Empire, providing a ready pool of such recruits. In return for being allowed to settle as *foederatii* in northern *Gallia* on the near side of the Rhine, the Franks were expected to defend the Empire's borders in their territory and provide troops to serve in Roman units.

In 376, a large band of Goths asked Emperor Valens for permission to settle on the southern bank of the Danube River on terms similar to the Franks. The Goths were also accepted into the empire as *foederati*; however, they rebelled later that year and defeated the Romans at the Battle of Adrianople. The heavy losses that the Roman military suffered during this defeat ironically forced the Roman Empire to rely still further on such *foederati* troops to supplement its forces.^[131] In 382, the practice was radically extended when federated troops were signed up *en masse* as allied contingents of *laeti* and *foederatii* troops separate from existing Roman units.^[130]

The size and composition of these allied forces remains in dispute. Santosuosso argues that *foederati* regiments consisted mostly of cavalry^[132] that were raised both as a temporary levy for a specific campaign need and, in some cases, as a permanent addition to the army. Hugh Elton believes that the importance of *foederati* has been overstated in traditional accounts by historians such as A.H.M. Jones. Elton argues that the majority of soldiers were probably non-Italian Roman citizens,^[133] ^[134] while Santosuosso believes that the majority of troops were almost certainly non-citizen *barbari*.^[135]

Collapse in the West and survival in the East (395 AD – 476 AD)

The non-federated mobile field army, known as the *comitatenses*, was eventually split into a number of smaller field armies: a central field army under the emperor's direct control, known as the *comitatensis palatina* or *praesentalis*, and several regional field armies.^[29] Historians Santosuosso and Vogt agree that the latter gradually degraded into low-quality garrison units similar to the *limitanei* that they either supplemented or replaced.^[101] By the 5th century, a significant portion of Western Rome's main military strength lay in rented barbarian mercenaries known as *foederati*.^[136]



Mosaic of what is presumed to be a Gothic war leader. The Goths were employed as *foederati* by the Romans in the 5th century

As the 5th century progressed, many of the Empire's original borders had been either wholly or partially denuded of troops to support the central field army.^{[136][137]} In 395, the Western Roman Empire had several regional field armies in Italy, Illyricum, Gallia, Britannia and Africa, and about twelve border armies. By about 430, two more field armies were established in Hispania and Tingitania but the central government had lost control of Britannia^[137] as well as much of Gaul, Hispania, and Africa. In the same period, the Eastern Roman Empire had two palatine field armies (at Constantinople), three regional field armies (in the East, in Thrace, and in Illyricum) and fifteen frontier armies.^[138]

"We received a terrible rumour about events in the West. They told us that Rome was under siege, and the only safety for its citizens was that which they could buy with gold, and when that had been stripped from them, they were besieged again, so that they lost not only their possessions, but also their lives. Our messenger gave the news in a faltering voice, and could hardly speak for sobbing. The city which had captured the world was now itself captured"

Jerome, Letters, 127

As Roman troops were spread increasingly thin over its long border, the Empire's territory continued to dwindle in size as the population of the empire declined^[139]. Barbarian war bands increasingly began to penetrate the Empire's vulnerable borders, both as settlers and invaders. In 451, the Romans defeated Attila the Hun, but only with assistance from a confederation of *foederatii* troops, which included Visigoths, Franks and Alans. As barbarian incursions continued, some advancing as far as the heart of Italy, Rome's borders began to collapse, with frontier forces swiftly finding themselves cut off deep in the enemy's rear.^[136]

Simultaneously, barbarian troops in Rome's pay came to be "*in a condition of almost perpetual turbulence and revolt*"^[140] from 409 onwards. In 476 these troops finally unseated the last emperor of the Western Roman Empire.^[141] The Eastern Roman forces continued to defend the Eastern Roman (Byzantine) Empire until its fall in 1453.^[142]

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Explanatory notes

[1] *Encyclopædia Britannica*, Eleventh Edition (1911), *The Roman Army*

[2] Goldsworthy, *In the Name of Rome*, p. 18

[3] Mommsen, *The History of Rome*, Volume 1, p. 40

[4] Keppie, *The Making of the Roman Army*, p. 14

[5] Mommsen, *The History of Rome*, Volume 1, p. 22

[6] The eleventh edition of the *Encyclopædia Britannica* calls Livy's numbers "clearly artificial and invented."

[7] Grant, *The History of Rome*, p. 22

* Boak, *A History of Rome to 565 AD*, p. 69

[8] Mommsen, *The History of Rome*, Volume 1, p. 20

[9] Boak, *A History of Rome to 565 AD*, p. 69

- [10] Boak, *A History of Rome to 565 AD*, p. 86
- [11] Mommsen, *The History of Rome*, Volume 1, p. 65
- [12] Livy, *The Rise of Rome*, Book 5, chapter 33
 - * Pallottino, *The Etruscans*, p. 68
- [13] Livy, *The Rise of Rome*, Book 1, chapter 42
- [14] Livy, *The Rise of Rome*, Book 1, chapter 43
- [15] Smith, *Service in the Post-Marian Roman Army*, p. 10
- [16] Boak, *A History of Rome to 565 AD*, p. 69
- [17] Gabba, *Republican Rome, The Army And the Allies*, p. 2
- [18] Grant, *The History of Rome*, p. 334
 - * Boak, *A History of Rome*, p. 454
- [19] Campbell, *The Crisis of Empire*, p. 126
 - * Boak, *A History of Rome*, p. 454
- [20] This viewpoint is echoed in the Encyclopædia Britannica, eleventh edition, which argues that "Much of its strength lay in the same qualities which made the Puritan soldiers of Cromwell terrible - the excellent character of the common soldiers, the rigid discipline, the high training."
- [21] Vogt, *The Decline of Rome*, p. 158
- [22] Gabba, *Republican Rome, The Army And the Allies*, p. 5
- [23] Grant, *The History of Rome*, p. 24
- [24] Grant, *The History of Rome*, Faber and Faber, 1979 p. 54
- [25] > Rome, The Samnite Wars (http://history-world.org/samnite_wars.htm)
- [26] Sekunda, *Early Roman Armies*, p. 40
- [27] Boak, *A History of Rome to 565 A.D.*, p. 87
- [28] Santosuosso, *Storming the Heavens*, p. 10
- [29] Santosuosso, *Storming the Heavens*, p. 18
- [30] From Maniple to Cohort (<http://www.strategypage.com/articles/default.asp?target=marius/manipletocohort>), Strategy Page
- [31] Polybius, *History*, Book 6
- [32] Luttwak, *The Grand Strategy of the Roman Empire*, p. 40
- [33] Livy, *The Rise of Rome*, Book 5, ch. 1
- [34] Webster, *The Roman Imperial Army*, p. 156
- [35] Smith, *Service in the Post-Marian Roman Army*, p. 2
- [36] Gabba, *Republican Rome, The Army and The Allies*, p. 7
- [37] Gabba, *Republican Rome, The Army and The Allies*, p. 9
- [38] Santosuosso, *Storming the Heavens*, p. 11
- [39] Webster, *The Roman Imperial Army*, p. 143
- [40] Boak, *A History of Rome to 565 A.D.*, p. 189
 - * Santosuosso, *Storming the Heavens*, p. 10
- [41] Gabba, *Republican Rome, The Army And the Allies*, p. 1
- [42] Cary & Scullard, *A History of Rome*, p. 219
- [43] Luttwak, *The Grand Strategy of the Roman Empire*, p. 27
- [44] Santosuosso, *Storming the Heavens*, p. 16
- [45] Tacitus, *Annals*, IV, 5
- [46] Luttwak, *The Grand Strategy of the Roman Empire*, p. 16
- [47] Santosuosso, *Storming the Heavens*, p. 29
- [48] Santosuosso, *Storming the Heavens*, p. 51
- [49] Smith, *Service in the Post-Marian Roman Army*, p. 56
- [50] Livy describes how an army of citizen levies was first retained for longer than a single season in 403BC. Citizens forced to continue to prosecute hostilities throughout the winter were apparently outraged and for a while Roman society came close to tearing at itself (see Livy, Book 5, Chapter 1). However, throughout the fourth and fifth centuries BC, it became gradually more common for campaigns to last for longer than a single season, such that Marius' reforms were not entirely radical on this point.
- [51] Gabba, *Republican Rome, The Army and The Allies*, p. 25
- [52] Boak, *A History of Rome*, p. 189
- [53] Smith, *Service in the Post-Marian Roman Army*, p. 29
- [54] Luttwak, *The Grand Strategy of the Roman Empire*, p. 14
- [55] Webster, *The Roman Imperial Army*, p. 116
- [56] Luttwak, *The Grand Strategy of the Roman Empire*, p. 15
- [57] Smith, *Service in the Post-Marian Roman Army*, p. 27
- [58] Webster, *The Roman Imperial Army*, p. 146
- [59] Luttwak, *The Grand Strategy of the Roman Empire*, p. 43
- [60] Luttwak, *The Grand Strategy of the Roman Empire*, p. 44

- [61] Santosuosso, *Storming the Heavens*, p. 67
- [62] Smith, *Service in the Post-Marian Roman Army*, p. 57
- [63] Smith, *Service in the Post-Marian Roman Army*, p. 71
- [64] Boak, *A History of Rome to 565 A.D.*, p. 270
 - * Smith, *Service in the Post-Marian Roman Army*, p. 71
- [65] Luttwak, *The Grand Strategy of the Roman Empire*, p. 17
 - * Grant, *A History of Rome*, p. 209
- [66] Santosuosso, *Storming the Heavens*, p. 91
- [67] Hassall, *The Army*, p. 325
 - * Santosuosso, *Storming the Heavens*, p. 91
- [68] Santosuosso, *Storming the Heavens*, p. 98
- [69] Cary & Scullard, *A History of Rome*, p. 338
- [70] Gibbon, *The Decline and Fall of the Roman Empire*, Chapter I, p. 36
- [71] Mattingly, *An Imperial Possession - Britain in the Roman Empire*, pp. 166–8
- [72] Webster, *The Roman Imperial Army*, p. 144
- [73] Webster, *The Roman Imperial Army*, p. 152
- [74] Webster, *The Roman Imperial Army*, p. 150
- [75] Webster, *The Roman Imperial Army*, p. 147
- [76] Webster, *The Roman Imperial Army*, p. 165
- [77] Hassall, *The High Empire, AD 70–192*, p. 320
- [78] Hassall, *The High Empire, AD 70–192*, p. 331
- [79] Hassall, *The High Empire, AD 70–192*, p. 331
 - * Gibbon, *The Decline and Fall of the Roman Empire*, Chapter I, p. 36
- [80] Alfoldi, *The Crisis of the Empire*, p. 211
- [81] Luttwak, *The Grand Strategy of the Roman Empire*, p. 124
- [82] Luttwak, *The Grand Strategy of the Roman Empire*, pp. 153–154
- [83] Santosuosso, *Storming the Heavens*, p. 98
- [84] Alfoldi, *The Crisis of the Empire*, p. 208
- [85] Vogt, *The Decline of Rome*, p. 58.
- [86] Santosuosso, *Storming the Heavens*, p. 173
- [87] Tacitus, *History*, 4, 64
- [88] Santosuosso, *Storming the Heavens*, p. 174
- [89] Santosuosso, *Storming the Heavens*, p. 175
- [90] Luttwak, *The Grand Strategy of the Roman Empire*, p. 122
- [91] Luttwak, *The Grand Strategy of the Roman Empire*, p. 123
- [92] Alfoldi, *The Crisis of the Empire*, p. 216
- [93] Luttwak, *The Grand Strategy of the Roman Empire*, p. 176
- [94] Alfoldi, *The Crisis of the Empire*, p. 211
 - * Heather, *The Fall of the Roman Empire*, pp. 58–67
- [95] Elton, *Warfare in Roman Europe*, p. 94
 - Santosuosso, *Storming The Heavens*, p. 190
- [96] Grant, *A History of Rome*, p. 285
 - * Vogt, *The Decline of Rome*, p. 74
- [97] Treadgold, *Byzantium and its Army, 284–1081*, p. 56.
- [98] The word can mean both a federated people, and also the units of allied troops later supplied by those people
- [99] Alfoldi, *The Crisis of the Empire*, p. 212
- [100] Alfoldi, *The Crisis of the Empire*, p. 219
- [101] Vogt, *The Decline of Rome*, p. 178
- [102] Boak, *A History of Rome to 565 AD*, p. 452
 - * Vogt, *The Decline of Rome*, p. 177
- [103] Luttwak, *The Grand Strategy of the Roman Empire*, p. 173
- [104] Vogt, *The Decline of Rome*, p. 177
- [105] Campbell, *The Army*, p. 121
- [106] Boak, *A History of Rome to 565 AD*, p. 452
 - * Grant, *A History of Rome*, p. 333
 - * Santosuosso, *Storming the Heavens*, p. 188
- [107] Luttwak, *The Grand Strategy of the Roman Empire*, pp. 154, 173
- [108] Cary & Scullard, *A History of Rome*, p. 534
- [109] Boak, *A History of Rome to 565 AD*, p. 451

- [110] Elton, *Warfare in Roman Europe, A.D. 350–425*, pp. 103, 105–106
 * Treadgold, *Byzantium and its Army*, pp. 44–59.
- [111] Southern & Dixon, *The Late Roman Army*, pp. 15–38.
- [112] Campbell, *The Army*, p. 121
 * Southern & Dixon, *The Late Roman Army*, pp. 11–17
- [113] Southern & Dixon, *The Late Roman Army*, pp. 15–20 & 37–38
- [114] Boak, *A History of Rome to 565 AD*, p. 451
 * Cary & Scullard, *A History of Rome*, p. 537
 * Vogt, *The Decline of Rome*, p. 25
- [115] Gibbon writes that due to "the abuse of Christianity... the active virtues of society were discouraged; and the last remains of military spirit were buried in the cloister."
- [116] Gibbon, *The Decline and Fall of the Roman Empire*, Chapter XXXVIII, p. 622
 * Grant, *A History of Rome*, p. 333
 * Santosuosso, *Storming the Heavens*, p. 229
- [117] Vogt, *The Decline of Rome*, p. 59
- [118] Alföldi, *The Crisis of the Empire*, p. 208
 * Boak, *A History of Rome to 565 AD*, p. 451
 * Vogt, *The Decline of Rome*, p. 178
- [119] Gibbon, *The Decline and Fall of the Roman Empire*, Chapter VI, p. 188
- [120] Luttwak, *The Grand Strategy of the Roman Empire*, p. 171
- [121] Boak, *A History of Rome to 565 AD*, p. 453
 * Vogt, *The Decline of Rome*, p. 59
- [122] Luttwak, *The Grand Strategy of the Roman Empire*, p. 175
- [123] Brian Campbell, *The Crisis of Empire*, p. 123
- [124] Cary & Scullard, *A History of Rome*, p. 535
- [125] Alföldi, *The Crisis of the Empire*, p. 209
- [126] Alföldi, *The Crisis of the Empire*, p. 209
 * Luttwak, *The Grand Strategy of the Roman Empire*, p. 175
- [127] Alföldi, *The Crisis of the Empire*, p. 213
- [128] Grant, *A History of Rome*, p. 310
- [129] Treadgold, *A History of Byzantine State and Society*, 19
- [130] Grant, *The History of Rome*, p. 334
- [131] Ammianus Marcellinus, *Historiae*, book 31, chapters 3–16.
- [132] Santosuosso, *Storming the Heavens*, p. 189
- [133] Elton argues from the proportion of Roman names to non-Roman names from 350 to 476
- [134] Elton, *Warfare in Roman Europe*, pp. 145–152.
- [135] Santosuosso, *Storming the Heavens*, p. 192
- [136] Luttwak, *The Grand Strategy of the Roman Empire*, p. 188
- [137] Salway, *Roman Britain*, 1981, p. 437
- [138] Treadgold, *Byzantium and its Army, 284–1081*, pp. 43–59.
- [139] Boak, *A History of Rome to 525 AD*, p. 521
- [140] Grant, *A History of Rome*, p. 344
- [141] Vogt, *The Decline of Rome*, p. 250
- [142] Runciman, *The Fall of Constantinople: 1453*.

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Praetorian Guard

The **Praetorian Guard** (Latin: *Praetoriani*) was a force of bodyguards used by Roman Emperors. The title was already used during the Roman Republic for the guards of Roman generals, at least since the rise to prominence of the Scipio family around 275 BC. The Guard was dissolved by Emperor Constantine I in the 4th century.

History

The term *Praetorian* derived from the tent of the commanding general or praetor of a Roman army in the field—the *praetorium*. They were an elite recruitment of Roman citizens and Latins. The emperors also often employed a small separate unit of bodyguards, distinct from and, in a degree, as a counterbalance to the Praetorian Guard^[1]. It was a habit of many Roman generals to choose from the ranks a private force of soldiers to act as guards of the tent or the person. They consisted of both infantry and cavalry. In time, this cohort came to be known as the *cohors praetoria*, and various notable figures possessed one, including Julius Caesar, Mark Antony and Augustus (Octavian). As Caesar discovered with the *Legio X Equestris*, a powerful unit more dangerous than its fellow legions was desirable in the field. When Augustus became the first ruler of the Roman Empire in 27 BC, he decided such a formation was useful not only on the battlefield but in politics also. Thus, from the ranks of the legions throughout the provinces, Augustus recruited the Praetorian Guard.



The Praetorian Guard of Augustus, 1st century AD. Depicted in a marble bas-relief.

Original form of the Guard

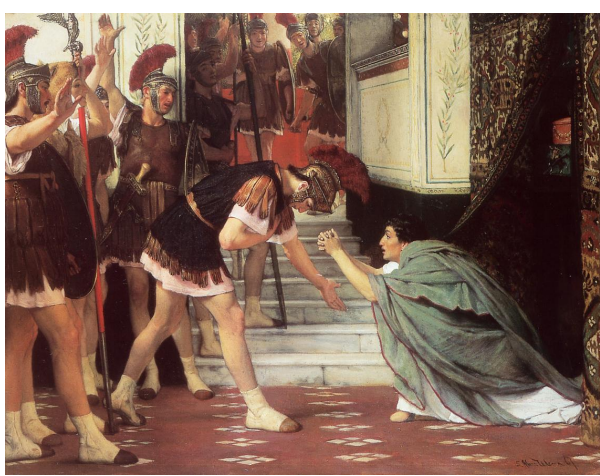
The group that was formed initially differed greatly from the later Guard, which came to be a vital force in the power politics of Rome. While Augustus understood the need to have a protector in the maelstrom of Rome, he was careful to uphold the Republican veneer of his regime. Thus he allowed only nine cohorts to be formed, originally of 500, then increased to 1,000 men each, and only three were kept on duty at any given time in the capital. A small number of detached cavalry units (*turmae*, sing. *turma*) of 30 men each were also organized. While they patrolled inconspicuously in the palace and major buildings, the others were stationed in the towns surrounding Rome; no threats were possible from these individual cohorts. This system was not radically changed with the appointment by Augustus in 2 BC of two Praetorian prefects, Quintus Ostorius Scapula and Publius Salvius Aper, although organization and command were improved.

Through the machinations of their ambitious prefect, Lucius Aelius Sejanus, the Guard was brought from the Italian barracks into Rome itself. In 23, Sejanus convinced Tiberius to have the *Castra Praetoria* (the fort of the Praetorians) built just outside of Rome. One of these cohorts held the daily guard at the imperial palace switching roles in between patrols (most of the guard in the imperial palace had shifted roles from morning till evening). Henceforth the entire Guard was at the disposal of the emperors, but the rulers were now equally at the mercy of the Praetorians. The reality of this was seen in 31 when Tiberius was forced to rely upon his own *cohors praetoria* against partisans of Sejanus. Although the Praetorian Guard proved faithful to the aging Tiberius, their potential political power had been made clear.

Participation in wars

While campaigning, the Praetorians were the equal of any formation in the Roman Army. On the death of Augustus in 14 A.D. his successor Tiberius was faced with mutinies among both the Rhine and Pannonian legions. According to Tacitus, the Pannonian forces were dealt with by Tiberius' son Drusus, accompanied by two Praetorian cohorts, the Praetorian cavalry and some of the German bodyguard. The German mutiny was put down by Tiberius' stepson Germanicus, his intended heir, who then led the legions and detachments of the Guard in an invasion of Germany over the next two years. The Guard saw much action in 69, fighting well for Otho at the first battle of Bedriacum. Under Domitian and Trajan, the guard took part in wars from Dacia to Mesopotamia, while with Marcus Aurelius, years were spent on the Danubian frontier. Throughout the 3rd century, the Praetorians assisted the emperors in various campaigns.

Political role



Proclaiming Claudius Emperor, by Lawrence Alma-Tadema, oil on canvas, c. 1867. According to one version of the story of Claudius' ascension to the role of Emperor, members of the Praetorian Guard found him hiding behind a curtain in the aftermath of the murder of Caligula in 41, and proclaimed him emperor.

Following the death of Sejanus, who was sacrificed for the *Donativum* (imperial gift) promised by Tiberius, the Guards began to play an increasingly ambitious and bloody game in the Empire. With the right amount of money, or at will, they assassinated emperors, bullied their own prefects, or turned on the people of Rome. In 41 Caligula was killed by conspirators from the senatorial class and from the Guard. The Praetorians placed Claudius on the throne, daring the Senate to oppose their decision.

During 69, the Year of the Four Emperors, after the emperor Galba failed to provide a donative for the Praetorians, they transferred their allegiance to Otho and assassinated the emperor. Otho acquiesced in the Praetorians' demands and granted them the right to appoint their own prefects, ensuring their loyalty. After defeating Otho, Vitellius disbanded the guard and

established a new one sixteen cohorts strong. Vespasian relied in the war against Vitellius upon the disgruntled cohorts the emperor had dismissed, and reduced the number of cohorts back to nine upon becoming emperor himself. As a further safeguard, he appointed his son, Titus as Praetorian Prefect.^[2]

While the Guard had the power to kill emperors, it had no role in government administration, unlike the personnel of the palace, the Senate, and the bureaucracy. Often after an outrageous act of violence, revenge by the new ruler was forthcoming. In 193, Didius Julianus purchased the Empire from the Guard for a vast sum, when the Guard auctioned it off after killing Pertinax. Later that year Septimius Severus marched into Rome, disbanded the Praetorians and started a new formation from his own Pannonian Legions. Unruly mobs in Rome fought often with the Praetorians in Maximinus Thrax's reign in vicious street battles.

In 271, Aurelian sailed east to destroy the power of Palmyra, Syria, with a force of legionary detachments, Praetorian cohorts, and other cavalry units. The Palmyrenes were easily defeated. This led to the orthodox view that Diocletian and his colleagues evolved the *sacer comitatus* (the field escort of the emperors), which included field units that utilized a selection process and command structure modeled after the old Praetorian cohorts, but was not of uniform composition and was much larger than a Praetorian cohort.

Guard's twilight years

In 284, Diocletian reduced the status of the Praetorians; they were no longer to be part of palace life, as Diocletian lived in Nicomedia, some 60 miles (100 km) from Byzantium in Asia Minor. Two new corps, the Ioviani and Herculiani (named after the gods Jove, or Jupiter, and Hercules, associated with the senior and junior emperor), replaced the Praetorians as the personal protectors of the emperors, a practice that remained intact with the tetrarchy. By the time Diocletian retired on May 1, 305, their Castra Praetoria seems to have housed only a minor garrison of Rome.

The final act of the Praetorians in imperial history started in 306, when Maxentius, son of the retired emperor Maximian, was passed over as a successor: the troops took matters into their own hands and elevated him to the position of emperor in Italy on October 28. Caesar Flavius Valerius Severus, following the orders of Galerius, attempted to disband the Guard but only managed to lead the rest of them in revolting and joining Maxentius. When Constantine the Great, launching an invasion of Italy in 312, forced a final confrontation at the Milvian Bridge, the Praetorian cohorts made up most of Maxentius' army. Later in Rome, the victorious Constantine definitively disbanded the Praetorian Guard. The soldiers were sent out to various corners of the Empire, and the Castra Praetoria was demolished. For over 300 years they had served, and the destruction of their fortress was a grand gesture, inaugurating a new age of imperial history and ending that of the Praetorians.

Legacy

Although its name has become synonymous with intrigue, conspiracy, disloyalty and assassination, it could be argued that for the first two centuries of its existence the Praetorian Guard was generally very much a positive force within the Roman state. During this time it mostly removed (or allowed the removal of) cruel, weak, and unpopular emperors while supporting just, strong, and popular ones. By protecting these monarchs, thereby extending their reigns, and also by keeping the disorders of the Roman mobs and the intrigues of the Senate in line, the Guard helped to give the empire a much needed source of stability that contributed to the period known as the *Pax Romana*.

It was only after the reign of Marcus Aurelius, when this period is considered to have ended, that the guard began to deteriorate into the meddling force of ruthless mercenaries for which it has become infamous. However, in this regard it was not alone; under the Severan dynasty, and afterwards during the Crisis of the Third Century the legions, the Senate, and the emperorship along with the rest of the Roman state began to fall into decline and inefficiency as well.

Relationships between emperors and their Guard

Emperor	Year	Relationship with the Guard
Augustus	27 BC–AD 14	Created the Praetorian Guard, commanded their complete loyalty.
Tiberius	14–37	Made Sejanus the sole Guard prefect (as opposed to having the usual two) allowed him to concentrate the guard in a single camp. Tiberius later had him executed and replaced with Macro.
Gaius Caligula	37–41	Accession smoothed by popularity with Macro, the Praetorian Prefect he later had executed. Murdered by the Guard.
Claudius	41–54	Proclaimed emperor by the Guard and defended by them when in difficulty (<i>e.g.</i> , Messalina and Gaius Silius' attempted coup). Began the process of formalised accession donatives on a large scale and his coinage reflects the fact with coin captioned imper.recep i.e. "position of emperor received from" with a picture of the Praetorian camp on.
Nero	54–68	Eventually deserted by the Guard ^[3]
Galba	68–69	Murdered by the Guard whose accession donative, promised on his behalf by Tigellinus and Otho, he refused to pay.

Otho	69	Elevated by the Guard who fought ferociously for him at Cremona before he committed suicide.
Vitellius	69	Deposed by the Guard then executed.
Vespasian	69–79	Reduced the size of the Guard after victory in 69 ^[4]
Titus	79–81	Served as Praetorian prefect, then as emperor.
Domitian	81–96	His election was supported by the Guard who remained fiercely loyal to him, especially as he increased the army's pay. Killed by influential palace freedmen.
Nerva	96–98	Forced by a rebelling guard to adopt Marcus Ulpius Traianus as his successor.
Trajan	98–117	Had the Guard officers who led the rebellion against Nerva executed upon his succession.
Hadrian	117–138	Founded the Frumentarii.
Antoninus Pius	138–161	
Marcus Aurelius	161–180	Commanded the Guard in his war against the Germanian Tribes.
Lucius Verus	161–169	
Commodus	180–192	Retained the loyalty of the Guard.
Pertinax	193	Assassinated by the Guard.
Didius Julianus	193	Scandalously 'purchased' the Empire from the Guard and was soon deserted by them.
Septimius Severus	193–211	Disbanded the Guard and created a new one from the Danubian Legions.
Caracalla	211–217	Murdered in a plot by the Praetorian Prefect Macrinus.
Macrinus	217–218	
Elagabalus	218–222	Murdered in the Castra Praetoria by the Guard.
Alexander Severus	222–235	Elevated by the Guard.
Maximinus Thrax	235–238	
Gordian I	238	
Gordian II	238	
Balbinus	238	Murdered by the Guard.
Pupienus	238	Murdered by the Guard.
Gordian III	238–244	Proclaimed emperor by the Guard but killed by his Prefect, Philip the Arab.
Philip the Arab	244–249	
Decius	249–251	
Herennius Etruscus	251	
Hostilian	251	
Trebonianus Gallus	251–253	
Aemilianus	253	
Publius Licinius Valerianus	253–260	
Gallienus	260–268	
Claudius II	268–270	

Quintillus	270	
Aurelian	270–275	The Praetorians accompanied Aurelian on an expedition against Palmyra. Subsequently he was murdered by the Guard
Marcus Claudius Tacitus	275–276	
Florianus	276	
Marcus Aurelius Probus	276–282	Murdered by Praetorian troops after a revolt.
Carus	282–283	
Carinus	283–285	
Numerian	283–284	
Diocletian	284–305	Dismantled the political power of the Praetorians through sweeping reforms of the Imperial system. Reported to have reduced the size of the Guard.
Maximian	286–305, 307–308	Praetorians accompanied Maximian to Africa in 297.
Galerius	305–311	
Constantius Chlorus	305–306	
Flavius Valerius Severus	306–307	
Maxentius	306–312	Last emperor to command the guard.
Constantine I	306–337	Disbanded the Guard and destroyed the Castra Praetoria.

Organization and conditions of service

Although the Praetorians resembled in some respects a Legion, they were unlike any of the regular Legions of the Roman Empire. Their nine cohorts (one less than a legion) were larger, the pay and benefits were better, and its military abilities were reliable. They also received gifts of money called *Donativum* from the emperors. As conceived by Augustus, the Praetorian cohorts totaled around 9,000 men, recruited from the legions of the regular army or drawn from the most deserving youths in Etruria, Umbria, and Latium (three provinces in central Italy). Over time the pool of recruits expanded to Macedonia, Hispania Baetica, Hispania Tarraconensis, Lusitania and Illyricum. Vitellius formed a new Guard out of the Germanic legions, while Septimius Severus did the same with the Pannonian legions. He also chose replacements for the units' ranks from throughout the Roman Empire.

Around the time of Augustus (c. 5) each cohort of the Praetorians numbered 1,000 men, increasing to 1,500 men at some time. As with the normal legions, the body of troops actually ready for service was much smaller. Tacitus reports that the number of cohorts was increased to twelve from nine in 47. In 69 it was briefly increased to sixteen cohorts by Vitellius, but Vespasian quickly reduced it again to nine.^[5] Finally in 101 their number was increased once more to ten, resulting in a force of 10,000 troops, whose status was at least elite.

The training of guardsmen was more intense than in the legions because of the amount of free time available, when a cohort was not posted or traveling with the emperor. The Guard followed the same lines as those elsewhere. Equipment and armour were also the same with one notable exception — specially decorated breastplates, excellent for parades and state functions. Insignia of the "Moon and Stars" and the "Scorpion" were particularly associated with the Praetorians. Thus, each guardsman possessed two suits of armor, one for Roman duty and one for the field.

The Praetorians received substantially higher pay^[6] than other Roman soldiers in any of the legions, on a system known as *sesquiple* *stipendium*, or by pay-and-a-half. So if the legionnaires received 250 denarii, the guards

received 375 per annum. Domitian and Septimius Severus increased the *stipendium* (payment) to 1,500 denarii per year, distributed in January, May and September.

On special occasions they received special donativum from the emperor.

Upon retiring, a soldier of the Praetorians was granted 20,000 sesterces (5,000 denarii) which constitute more than 13 annual salaries. Furthermore, a gift of land and a diploma reading "to the warrior who bravely and faithfully completed his service" were granted. Many chose to enter the *Evocati*, while others reenlisted in the hopes of gaining further promotion and other possible high positions in the Roman state.

Imperial Horseguard

From its beginnings, the guard usually included a small cavalry detachment, the *equites singulares Augusti*, to escort the emperors to important state functions and on military campaigns. It was composed chiefly of selected, highly trusted provincials, who wore their native dress and carried their own weapons. Trajan expanded this force, opening it up to citizens and made it a permanent part of the Praetorian establishment. Its size was that of an *ala milliaria* or about 720 horsemen in 24 *turmae* (squadrons). It was commanded by a *tribunus militum* and so was, in effect, a 10th Praetorian cohort. Later, Septimius Severus (ruled 197-211) would expand its size to 2,000 men.

Rank and file

Ranks of the Praetorian Guard, in ascending order	
Milites	Regular soldiers of the guard.
Immunes	Guardsmen with secondary specialist roles that exempted them from other less than desired duties. After five years these soldiers were allowed to serve in the <i>Equites singulares</i> (cavalry branch).
Evocati Augusti	After 16 years of service guardsmen could retire with a sizeable cash payment. Guardsmen who chose to stay in service after the 16 year period were called Evocati and gained privileges.
Centuriones	Praetorian Centurions commanded centuries of guardsmen while the most senior centurions commanded entire cohorts.
Tribuni	These officers acted as staff officers and as deputies to the Praetorian Prefects.
Praefectus	The highest rank in the Praetorian Guard, head of the Praetorian Guard.

See the article *Praetorian prefect*, which also lists the incumbents of the post of *Praefectus praetorio* and covers the essentially civilian second life of the office, since ca 300, as administrator of the territorial circumscriptions known as praetorian prefectures).

In popular culture

In Modern English, the phrase "praetorian guard(s)" designates an exclusive, unconditionally loyal group personally attached to powerful people, especially leaders such as Napoleon I's Imperial Guard, Italian dictator Benito Mussolini's Battalion M, Adolf Hitler's 1st SS Division Leibstandarte SS Adolf Hitler troops, Romania's former communist leader Ceaușescu's Securitate, and, in current times, Khamenei's IRGC in Iran (Islamic Revolutionary Guard Corps). However, the term is also used in unarmed, even private contexts: for example, a corporate officer or politician may have a small group of associates or followers whom a journalist may describe as a "praetorian guard." Such use is often pejorative, meant to indicate that the followers are fanatics or extremists and/or that the leader is tyrannical or paranoid. *Praetorianism* is used to mean the advocacy or practice of military dictatorship. John Stockwell, a former member of the CIA, used the title *The Praetorian Guard* for his book about the negative aspects of US foreign policy.

The Praetorian Guard features in the 2000 film *Gladiator* and the TV-film *Age of Treason* (Columbia 1993). The Guard's soldiers appear as infantry units in *Civilization IV*, *Rome: Total War*, *Travian* and in the video game with

title being part of it *Praetorians*.

The Praetorians are a regiment of the Imperial Guard in the tabletop game *Warhammer 40,000* (although these are themed after 19th century British Empire soldiers; it is more likely the influence for the name comes from *Pretoria*, an important city in colonial South Africa).

In the film *The Net*, the 'cyber-terrorists' who use the internet to destroy the protagonist's life, at the bidding of a millionaire computer entrepreneur are called 'Praetorians'.

In the Game "Fallout: New Vegas" One of the factions "Caesars Legion" uses a Praetorian guard that are hand picked. They are invited to the guard when they have served long enough and killed enough of Caesar's enemies to become Centurions. The select few invited must pick out a current member whom they believe is the weakest and challenge them to an unarmed fight to the Death. If the invitee wins they take over the losers position.

Notes

- [1] Julius Caesar and after him, Octavian Augustus had included a unit of Basques as closest personal bodyguards as initiated by Sertorius. Later, Tiberius and Caligula would rely on Germans.
- [2] Bingham, pp. 118–122.
- [3] Suetonius, *Nero* 47.1–2 (http://penelope.uchicago.edu/Thayer/E/Roman/Texts/Suetonius/12Caesars/Nero*.html#47); Dio 63.26.2b (http://penelope.uchicago.edu/Thayer/E/Roman/Texts/Cassius_Dio/63*.html#27.2.b).
- [4] Bingham, p. 122 and n. 13.
- [5] Bingham, pp. 121–122.
- [6] "Roman Economy - Prices in Ancient Rome" (<http://www.ancientcoins.biz/pages/economy/>). Ancientcoins.biz. . Retrieved 2007-06-13.

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Roman legion

A **Roman legion** (from Latin *legio* "military levy, conscription," from *legere* — "to choose") normally indicates the basic ancient Roman army unit recruited specifically from Roman citizens. The organization of legions varied greatly over time but were typically composed of up to 5,000 soldiers, originally divided into maniples and later into cohorts. Maniples/Cohorts were divided into centuries.

In reference to the early Kingdom of Rome (as opposed to the republic or empire) "the legion" means the entire Roman army.

For most of the Roman Imperial period, the legions were a part of the Imperial army and formed its elite heavy infantry, recruited exclusively from Roman citizens (provincials who aspired to the citizenship gained it when honorably discharged from the auxiliaries). Each legion always included a small cavalry attachment. The Roman army (for most of the Imperial period) consisted mostly of "auxiliary" cohorts^[1] who provided additional infantry, and the vast majority of the Roman army's cavalry.

Because of the enormous military successes of the Roman Republic and the Roman Empire, the legion has long been regarded as the prime ancient model for military efficiency and ability.

See List of Roman legions for a catalogue of known late republic, early Empire and late Empire legions, with dates in existence, emblem and locations of deployment.

Overview of typical organization & strength

Because legions were not standing units until the Marian reforms (c. 107 BC), and were instead created, used, and disbanded again, several hundred legions were named and numbered throughout Roman history. To date, about 50 have been identified. In the time of the Early Roman Empire, there were usually about 25–35 permanent standing legions.

A legion consisted of several cohorts of heavy infantry known as legionaries. It was almost always accompanied by one or more attached units of auxiliaries, who were not Roman citizens and provided cavalry, ranged troops and skirmishers to complement the legion's heavy infantry. The recruitment of non-citizens was rare but appears to have occurred in times of great need; For example Caesar appears to have recruited the Legio V Alaudae mostly from non-citizen Gauls.

The size of a typical legion varied throughout the history of ancient Rome, with complements of 4,200 legionaries and 300 equites (drawn from the wealthier classes - in early Rome all troops provided their own equipment) in the republican period of Rome, (the infantry were split into 30 maniples of 120 legionaries each), to 5,200 men plus auxiliaries in the imperial period (split into 10 cohorts, 9 of 480 men each, plus the first cohort holding 800 men).

History

Roman kings (to c.500 BC)

In the period before the raising of the *legio* and the early years of the Roman Kingdom and the Republic, forces are described as being organized into *centuries* of roughly one hundred men. These centuries were grouped together as required and answered to the leader who had hired or raised them. Such independent organization persisted until the 2nd century BC amongst light infantry and cavalry, but was discarded completely in later periods with the supporting role taken instead by allied troops. The roles of century leader (later formalised as a centurion), second in command and standard bearer are referenced in this early period.

Much Roman history of the era is shrouded in legend but it is believed that during the reign of Servius Tullius, the census (from Latin: *censeō* – accounting of the people) was introduced. With this all Roman able-bodied,

property-owning male citizens were divided into five classes for military service based on their wealth and then organised into centuries as sub-units of the greater Roman army or *legio* (multitude). Joining the army was both a duty and a distinguishing mark of Roman citizenship; during the entire pre-Marian period the wealthiest land owners performed the most years of military service. These individuals would have had the most to lose should the state have fallen.

The first and wealthiest common class was armed in the fashion of the hoplite with spear, sword, helmet, breast plate and round shield (called *clipeus* in Latin, similar to the Greek *aspis*, also called *hoplon*); there were 82 centuries of these of which two were trumpeters. Roman soldiers had to purchase their own equipment. The second and third class also acted as spearmen but were less heavily armoured and carried a larger oval or rectangular shield. The fourth class could afford no armour; perhaps bearing a small shield and armed with spear and javelin. All three of the latter classes made up about 26 centuries. The fifth and final class was composed only of slingers. There were 32 centuries raised from this class, two of which were designated engineers. The army officers as well as the cavalry were drawn from leading citizens who enrolled as equestrians (*equites*). The equites were later placed in smaller groups of 30 that were commanded by decurions (which means commander of ten). There were 18 centuries of equites.

Until the 4th century BC the massive Greek phalanx was the mode of battle. Roman soldiers would have thus looked much like Greek *hoplites*. Tactics were no different from those of the early Greeks and battles were joined on flat terrain. Spearmen would deploy themselves in tightly packed rows to form a shield wall with their spears pointing forwards. They charged the enemy supported by javelin throwers and slingers; the cavalry pursued the enemy, sometimes dismounting to support infantry in dire situations. The phalanx was a cumbersome military unit to manoeuvre and was easily defeated by mountain tribes such as the Volsci or Samnites in rough terrain.

Early civilian authorities called *praetors* doubled as military leaders during the summer war season. A declaration of war included a religious ceremony ending with the throwing of a ceremonial javelin into the enemy's territory to mark the start of hostilities.

Roman Republic (509–107 BC)

At some point, possibly in the beginning of the Roman Republic after the kings were overthrown, the *legio* was subdivided into two separate legions, each one ascribed to one of the two consuls. In the first years of the Republic, when warfare was mostly concentrated on raiding, it is uncertain if the full manpower of the legions was summoned at any one time. Also, some warfare was still conducted by Roman forces outside the legionary structure, the most famous example being the campaign in 479 BC by the clan army of gens Fabia against the Etruscan city of Veii (in which the clan was annihilated). Legions became more formally organized in the 4th century BC, as Roman warfare evolved to more frequent and planned operations, and the consular army was raised to two legions.

In the Republic, legions had an ephemeral existence. Except for Legio I to IV, which were the consular armies (two per consul), other units were levied by campaign. Rome's Italian allies were required to provide a legion to support each Roman Legion.

In the middle of the Republic, legions were composed of the following units:

- *Equites* (cavalry): The cavalry was originally the most prestigious unit, where wealthy young Roman men displayed their skill and prowess, laying the foundation for an eventual political career. Cavalry equipment was purchased by each of the cavalrymen and consisted of a round shield, helmet, body armour, sword and one or more lances. The cavalry was outnumbered in the legion. In a total of *circa* 3000 men, (plus the velites that normally enlarged the number to about 4200), the legion had only around 300 horsemen, divided into 10 units (*turmae*) of 30 men. These men were commanded by decurions. In addition to heavy cavalry, there would be the light cavalry levied from poor citizens and wealthy young citizens not old enough to be in the *hastati* or the *equites*. In battle, they were used to disrupt and outflank enemy infantry formations and to fight off enemy cavalry. In the latter type of engagement they would often (though not always) dismount some or all of the

horsemen to fight a stationary battle on foot, an unusual tactic for the time, but one that offered significant advantages in stability and agility in a time before stirrups.^[2]

- *Velites* (light infantry): The *velites* were mainly poorer citizens who could not afford to equip themselves properly. Their primary function was to act as skirmishers – javelin-throwers who would engage the enemy early in order either to harass them or to cover the movement of troops behind them. After throwing their javelins they would retreat through the gaps between the maniples, screened from the attack of the enemy by the heavy infantry lines. With the shortage of cavalry in the army of the early to mid Republican army, the *velites* were also used as scouts. They did not have a precise formal organization or formation.
- Heavy infantry: This was the principal unit of the legion. The heavy infantry was composed of citizen legionaries that could afford the equipment composed of an iron helmet, shield, armour and *pilum*, a heavy javelin whose range was about 30 meters. After 387 BC, the preferred weapon for the *hastati* and *principes* was the *gladius*, a short sword. Their hobnailed sandals (*caligae*) were also an effective weapon against a fallen enemy (*cf.* the mediaeval misericorde). Prior to the Marian reforms (see below) the heavy infantry was subdivided, according to experience, into three separate lines of troops:
 - The *hastati* (sing. *hastatus*) consisted of raw or inexperienced soldiers, considered to be less reliable than legionaries of several years' service.
 - The *principes* (sing. *princeps*) were men in their prime (late twenties to early thirties).
 - The *triarii* (sing. *triarius*) were the veteran soldiers, to be used in battle only in extreme situations (*cf.* the Imperial Guard of Napoleon I of France); they rested one knee down when not engaged in combat. The *triarii* served primarily as reserves or barrier troops designed to backstop the *hastati* and *principes*, and were equipped with long *hastae* (spears) rather than the *pilum* and *gladius* (the *hastati* and *principes* stopped using spears in 387 BC). Thus armed, they fought in a phalanx formation. The sight of an advancing armored formation of *triarii* legionaries frequently discouraged exultant enemies in pursuit of retreating *hastati* and *principes* troops. *Ad triarios redisse* - *To fall back upon the triarii* was a Roman idiom – meaning to use one's last resort.

Each of these three lines was subdivided into (usually 10) chief tactical units called maniples. A maniple consisted of two centuries and was commanded by the senior of the two centurions. At this time, each century of *hastati* and *principes* consisted of 60 men; a century of *triarii* was 30 men. These 3000 men (twenty maniples of 120 men, and ten maniples of 60 men), together with about 1200 *velites* and 300 cavalry gave the mid Republican ("manipular") legion a nominal strength of about 4500 men.

Late Republic (107–30 BC)

See also List of Roman legions for details of notable late Republican legions

See also Sub-Units of the Roman legion

The Marian reforms (of Gaius Marius) enlarged the centuries to 80 men, and grouped them into 6-century "cohorts" (rather than two-century maniples). Each century had its own standard and was made up of ten units (*contubernia*) of eight men who shared a tent, a millstone, a mule and cooking pot.

Following the reforms of the general Marius in the 2nd century BC, the legions took on the second, narrower meaning that is familiar in the popular imagination as close-order citizen heavy infantry.

At the end of the 2nd century BC, Gaius Marius reformed the previously ephemeral legions as a professional force drawing from the poorest classes, enabling Rome to field larger armies and providing employment for jobless citizens of the city of Rome. However, this put the loyalty of the soldiers in the hands of their general rather than the State of Rome itself. This development ultimately enabled Julius Caesar to cross the Rubicon with an army loyal to him personally and effectively end the Republic.

The legions of the late Republic and early Empire are often called *Marian* legions. Following the Battle of Vercellae in 101 BC, Marius granted all Italian soldiers Roman citizenship. He justified this action to the Senate by saying that in the din of battle he could not distinguish Roman from ally. This effectively eliminated the notion of allied legions; henceforth all Italian legions would be regarded as Roman legions, and full Roman citizenship was open to all the regions of Italy. At the same time, the three different types of heavy infantry were replaced by a single, standard type based on the *Principes*: armed with two heavy javelins called *pila* (singular *pilum*), the short sword called *gladius*, chain mail (*lorica hamata*), helmet and rectangular shield (*scutum*).

The role of allied legions would eventually be taken up by contingents of allied auxiliary troops, called *Auxilia*. *Auxilia* contained specialist units, engineers and pioneers, artillerymen and craftsmen, service and support personnel and irregular units made up of non-citizens, mercenaries and local militia. These were usually formed into complete units such as light cavalry, light infantry or *velites*, and labourers. There was also a reconnaissance squad of 10 or more light mounted infantry called *speculatores* who could also serve as messengers or even as an early form of military intelligence service.

As part of the Marian reforms, the legions' internal organization was standardized. Each legion was divided into *cohorts*. Prior to this, cohorts had been temporary administrative units or tactical task forces of several maniples, even more transitory than the legions themselves. Now the cohorts were ten permanent units, composed of 6 centuries and in the case of the first cohort 12 centuries each led by a centurion assisted by an *optio*. The cohorts came to form the basic tactical unit of the legions. Ranking within the legion was based on length of service, with the senior Centurion commanding the first century of the first cohort; he was called the *primus pilus* (First File), and reported directly to the superior officers (legates and tribuni). All career soldiers could be promoted to the higher ranks in recognition of exceptional acts of bravery or valour. A newly promoted junior Centurion would be assigned to the sixth century of the tenth cohort and slowly progressed through the ranks from there.

Every legion had a large baggage train which included 640 mules (1 mule for every 8 legionaries) only for the soldiers' equipment. To keep these baggage trains from becoming too large and slow, Marius had each infantryman carry as much of his own equipment as he could, including his own armour, weapons and 15 days' rations, for about 25–30 kg (50–60 pounds) of load total. To make this easier, he issued each legionary a cross stick to carry their loads on their shoulders. The soldiers were nicknamed *Marius' Mules* because of the amount of gear they had to carry themselves. This arrangement allowed for the possibility for the supply train to become temporarily detached from the main body of the legion, thus greatly increasing the army's speed when needed.

A typical legion of this period had 5,120 legionaries as well as a large number of camp followers, servants and slaves. Legions could contain as many as 6,000 fighting men when including the auxiliaries, although much later in Roman history the number was reduced to 1,040 to allow for greater mobility. Numbers would also vary depending on casualties suffered during a campaign; Julius Caesar's legions during his campaign in Gaul often only had around 3,500 men.

Tactics were not very different from the past, but their effectiveness was largely improved because of the professional training of the soldiers.

After the Marian reforms, and throughout the history of Rome's Late Republic, the legions played an important political role. By the 1st century BC the threat of the legions under a demagogue was recognized. Governors were not allowed to leave their provinces with their legions. When Julius Caesar broke this rule, leaving his province of Gaul and crossing the Rubicon into Italy, he precipitated a constitutional crisis. This crisis and the civil wars which followed brought an end to the Republic and led to the foundation of the Empire under Augustus in 27 BC.



A re-enactor as a Roman centurion, c. 70.



A re-enactor, showing a Roman *miles*, (2nd century).



The Roman empire under Hadrian (ruled 117–38), showing the **legions** deployed in 125

Early Empire (30 BC–AD 284)

See also Directory of Roman legions of the early Empire

See also Sub-Units of the Roman legion

Generals, during the recent Republican civil wars, had formed their own legions and numbered them as they wished. During this time, there was a high incidence of *Gemina* (twin) legions, where two legions were consolidated into a single organization (and was later made official and put under a dux and six duces). At the end of the civil war against Mark Antony, Augustus was left with around fifty legions, with several double counts (multiple Legio Xs for instance). For political and economic reasons, Augustus reduced

the number of legions to 28 (which diminished to 25 after the Battle of Teutoburg Forest, in which 3 legions were slaughtered).

Beside streamlining the army Augustus also regulated the soldiers' pay. At the same time, he greatly increased the number of auxiliaries to the point where they were equal in number to the legionaries. He also created the Praetorian

Guard along with a permanent navy where served the *liberti*, or freed slaves.

Augustus' military policies proved sound and cost effective, and were generally followed by his successors. These emperors would carefully add new legions, as circumstances required or permitted, until the strength of the standing army stood at around 30 legions (hence the wry remark of the philosopher Favorinus that *It is ill arguing with the master of 30 legions*). With each legion having 5,120 legionaries usually supported by an equal number of auxiliary troops, the total force available to a legion commander during the Pax Romana probably ranged from 11,000 downwards, with the more prestigious legions and those stationed on hostile borders or in restive provinces tending to have more auxiliaries. Some legions may have even been reinforced at times with units making the associated force near 15,000–16,000 or about the size of a modern division.

Throughout the imperial era, the legions played an important political role. Their actions could secure the empire for a usurper or take it away. For example, the defeat of Vitellius in the Year of the Four Emperors was decided when the Danubian legions chose to support Vespasian.

In the empire, the legion was standardized, with symbols and an individual history where men were proud to serve. The legion was commanded by a *legatus* or *legate*. Aged around thirty, he would usually be a senator on a three year appointment. Immediately subordinate to the legate would be six elected *military tribunes* — five would be staff officers and the remaining one would be a noble heading for the Senate (originally this tribune commanded the legion). There would also be a group of officers for the medical staff, the engineers, record-keepers, the *praefectus castrorum* (commander of the camp) and other specialists such as priests and musicians.

Late Empire (from 284)

See List of Roman legions for catalogue of late Empire legions

In the Later Roman Empire, the number of legions was increased and the Roman Army expanded. There is no evidence to suggest that legions changed in form before the Tetrarchy, although there is evidence that they were smaller than the paper strengths usually quoted. The final form of the legion originated with the elite *legiones palatinae* created by Diocletian and the Tetrarchs. These were infantry units of around 1,000 men rather than the 5,000, including cavalry, of the old Legions. The earliest *legiones palatinae* were the *Lanciarrii*, *Joviani*, *Herculiani* and *Divitenses*.

The 4th century saw a very large number of new, small legions created, a process which began under Constantine II. In addition to the elite *palatini*, other legions called *comitatenses* and *pseudocomitatenses*, along with the *auxilia palatina*, provided the infantry of late Roman armies. The Notitia Dignitatum lists 25 *legiones palatinae*, 70 *legiones comitatenses*, 47 *legiones pseudocomitatenses* and 111 *auxilia palatina* in the field armies, and a further 47 *legiones* in the frontier armies.^[3] Legion names such as *Honoriani* and *Gratianenses* found in the Notitia suggest that the process of creating new legions continued through the 4th century rather than being a single event. The names also suggest that many new legions were formed from *vexillationes* or from old legions. In addition there were 24 *vexillationes palatini*, 73 *vexillationes comitatenses*; 305 other units in the Eastern *limitanei* and 181 in the Western *limitanei*.^[4]

According to the late Roman writer Vegetius' *De Re Militari*, each century had a ballista and each cohort had an onager, giving the legion a formidable siege train of 59 Ballistae and 10 Onagers each manned by 10 *libritors* (artillerymen) and mounted on wagons drawn by oxen or mules. In addition to attacking cities and fortifications, these would be used to help defend Roman forts and fortified camps (*castra*) as well. They would even be employed on occasion, especially in the later Empire, as field artillery during battles or in support of river crossings.

Despite a number of reforms, the Legion system survived the fall of the Western Roman Empire, and was continued in the Eastern Roman Empire until around 7th century, when reforms begun by Emperor Heraclius to counter the



A re-enactor, portraying a legionary at the end of the 3rd century

increasing need for soldiers around the Empire resulted in the Theme system. Despite this, the Eastern Roman/Byzantine armies continued to be influenced by the earlier Roman legions, and were maintained with similar level of discipline, strategic prowess, and organization.

Legionary ranks

Aside from the rank and file legionary (who received the base wage of 10 asses a day or 225 denarii a year), the following list describes the system of officers which developed within the legions from the Marian reforms (104 BC) until the military reforms of Diocletian (c. 290).

Senior officers

- ***Legatus legionis*, Legate:** The overall legion commander. The post was usually filled by a senator, appointed by the emperor, who held command for 3 or 4 years, although he could serve for a much longer period. In a Roman province with only one legion, the *legatus* was also the provincial governor and in provinces with multiple legions, each legion had a *legatus* and the provincial governor with the title *Legatus Augusti pro praetore* had overall command of them all.
- ***Dux*, literally **The Leader**:** A title not used until the later empire, or dominate, referring to a general in charge of two or more provincial military units. While the title of *dux* could refer to a Consul or Imperator, it usually referred to the commander-in-chief of the *limitanei* garrisoned within a province.
- ***Tribunus laticlavus*, Broad Band Tribune:** Named for the broad striped tunic worn by men of senatorial rank, this tribune was appointed by the emperor or the Senate. Though generally quite young and less experienced than the *tribuni angusticlavii*, he served as second in command of the legion, behind the legate. Because of his age and inexperience he was not the actual second in command in battle, but if the legate died he would take command of the legion. This tribunate was often a first, but optional, step in a young man's senatorial career (see *cursus honorum*).^[5]
- ***Praefectus castrorum*, Camp Prefect:** The Camp Prefect was third in command of the legion. Generally he was a long serving veteran from a lower social status than the *tribunii* whom he outranked, and who previously had served as *primus pilus* and finished his 25 years with the legions. He was used as a senior officer in charge of training a legion.
- ***Tribuni angusticlavii*, Narrow Band Tribunes:** Each legion had five more junior tribunes. They were normally young men of high birth who were not necessarily experienced. The more senior *tribunus laticlavus* rank existed to provide a more senior tribune to supervise these other tribunes.



Centurions

The rank of centurion was an officer rank that included many grades, meaning centurions had very good prospects for promotion. The most senior centurion in a legion was known as the *primus pilus* (first file or spear) who directly commanded the 1st century of the first cohort and commanded the whole first cohort when in battle. Within the second to tenth cohorts, the commander of each cohort's 1st century was known as a *pilus prior* and was in command of his entire respective cohort when in battle. The seniority of the *pilus prior* centurions was followed by the five other century commanders of the first cohort, who were known as *primi ordines*.

An ordinary centurion was the approximate equivalent of a Captain in a modern army, whereas the most senior centurion was closer to the equivalent of a full Colonel.

The six centuries of a normal cohort, were, in order of precedence:

- The forward hastati (forward spears)
- The rear hastati (rear spears)
- The forward principes (forward principal line)
- The rear principes (rear principal line)
- The forward triarii (forward third line)
- The rear triarii (rear third line)

The centuries took their titles from the old use of the legion drawn up in three lines of battle using three classes of soldier. (Each century would then hold a cross-section of this theoretical line, although these century titles were now essentially nominal.) Each of the three lines is then sub-divided within the century into a more forward and a more rear century.



A historical reenactor in Roman centurion costume.

- ***Primus pilus***, literally **First File**: The *Primus Pilus* was the commanding centurion of the first cohort and the senior centurion of the entire legion. He was called first file because he also directly commanded the 1st century of the first cohort. (Unlike other cohorts, the first cohort had only one javelin century, instead of a "front spear" and a "back spear" century). The *Primus Pilus* had a chance of later becoming a *Praefectus Castrorum*. When the *primus pilus* retired he would most likely gain entry into the equestrian class. He was paid 60 times the base wage.
- ***Primi ordines***: The "ranks of the first [cohort]" were the five centurions of the first cohort, and included the *primus pilus*. They, excluding the *primus pilus*, were paid 30 times the base wage. This rank is senior to all other centurions, save the *primus pilus* and *pilus prior*.
- ***Pilus prior***: The "front file" centurions were the senior centurions of the cohorts. While the legion was in battle formation, the *Pilus Prior* was given command of the entire cohort. The *Primus Pilus* was also a *Pilus Prior*, and the most senior of all the centurions within the legion. These positions were usually held by experienced veteran soldiers who had been moved up within the ranks. This rank is subordinate to the *Primus Pilus*.
- ***Other Centurions***: Each legion had 59 or 60 centurions, one to command each century of the 10 cohorts. They were the backbone of the professional army and were the career soldiers who ran the day to day life of the soldiers and issued commands in the field. They were generally moved up from the ranks, but in some cases could be direct appointments from the Emperor or other higher-ranking officials. The cohorts were ranked from the first to the tenth and the century within each cohort ranked from 1 to 6, with only 5 centuries in the first cohort (for a total of 59 centurions and the *primus pilus*). The century that each centurion commanded was a direct reflection of his rank: command of the 1st century of the first cohort was the highest, and the 6th century of the 10th cohort was the lowest. Paid ten times the basic wage.

Lower ranks

- *Optio*: One for each centurion (59–60), they were appointed by the centurion from within the ranks to act as his second in command and were paid twice the basic wage. Equivalent to a modern Lieutenant.^[6]
- *Tesserarius*: (Guard commander) One for each century. They acted as seconds to the Optios and were paid one and a half times the basic wage. Keeper of the watchword, administrative assistant to HQ Staff, third in command of a century. Equivalent to a modern First Sergeant
- *Decurio*: Commanded a cavalry unit (*turma*) of 10 to 30 *eques legionis*.^[6]
- *Decanus*: Commanded a *contubernium* or eight man tent party, equivalent to a Sergeant

Special duty posts

- *Aquilifer*: A single position within the legion. The aquilifer was the legion's standard- or *Aquila* (eagle)- bearer and was an enormously important and prestigious position. Losing the aquila was considered the greatest dishonor a legion could endure. This post therefore had to be filled with steady veteran soldiers, with an excellent understanding of the tactics of the legion. He was paid twice the basic wage.
- *Signifer*: Each century had a *signifer* (thus, there were 59 in a legion) and within each cohort the 1st century's *signifer* would be the senior. He was standard-bearer for the *centurial signum*, a spear shaft decorated with medallions and topped with an open hand to signify loyalty, which was a rallying point for the soldiers. In addition to carrying the *signum*, the *signifer* also assumed responsibility for the financial administration of the unit and functioned as the legionaries' banker. He was paid twice the basic wage.
- *Cornicen* (Horn blower): Worked hand in hand with the signifer drawing the attention of the men to the centurial signum and issuing the audible commands of the officers. He was paid twice the basic wage.
- *Imaginifer*: A special position from the time of Augustus onwards. Carried the standard bearing the image of the Emperor as a constant reminder of the troops' loyalty to him. He was paid twice the basic wage.
- *Immunes*: Immunes were legionary soldiers who possessed specialized skills, qualifying them for better pay and excusing them from labour and guard work. Engineers, artillerymen, musicians, drill and weapons instructors, carpenters, hunters, medical staff and military police were all immune soldiers. These men were still fully trained legionaries however and were called upon to serve in the battle lines when needed.
- *Evocati*: Veterans of the Roman army who had the right to retire, but had chosen to stay on after their tenure was finished. During this period they received double pay and were excluded from regular duties such as manual labour.
- *Duplicarius*: A special pay grade that could also be awarded regardless of rank, received double the basic pay.

Pay

From the time of Gaius Marius onwards, legionaries received 225 *denarii* a year (equal to 900 *Sestertii*); this basic rate remained unchanged until Domitian, who increased it to 300 *denarii*. In spite of the steady inflation during the 2nd century, there was no further rise until the time of Septimius Severus, who increased it to 500 *denarii* a year. However, the soldiers did not receive all the money in cash, as the state deducted their pay with a clothing and food tax. To this wage, a legionary on active campaign would hope to add the booty of war, from the bodies of their enemies and as plunder from enemy settlements. Slaves could also be claimed from the prisoners of war and divided amongst the legion for later selling, which would bring in a sizeable supplement to their regular pay.

All legionary soldiers would also receive a sizeable sum of money on the completion of their term of service: 3000 *denarii* from the time of Augustus and/or a plot of good farmland (good land was in much demand); farmland given to veterans often helped in establishing control of the frontier regions and over rebellious provinces. Later, under Caracalla, the *praemia* increased to 5000 *denarii*.

Symbols

From 104 BC onwards, each legion used an aquila (eagle) as its standard symbol. The symbol was carried by an officer known as *aquilifer*, and its loss was considered to be a very serious embarrassment, and often led to the disbanding of the legion itself. Normally this was because any legion incapable of regaining its eagle in battle was so severely mauled it was no longer combat effective.

In *Gaulic War* (Bk IV, Para. 25), Julius Caesar describes an incident at the start of his first invasion of Britain in 55 BC that illustrated how fear for the safety of the eagle could drive Roman soldiers. When Caesar's troops hesitated to leave their ships for fear of the Britons, the *aquilifer* of the tenth legion threw himself overboard and, carrying the eagle, advanced alone against the enemy. His comrades, fearing disgrace, 'with one accord, leapt down from the ship' and were followed by troops from the other ships.

With the birth of the Roman Empire, the legions created a bond with their leader, the emperor himself. Each legion had another officer, called *imaginifer*, whose role was to carry a pike with the *imago* (image, sculpture) of the emperor as *pontifex maximus*.

Each legion, furthermore, had a *vexillifer* who carried a *vexillum* or *signum*, with the legion name and emblem depicted on it, unique to the legion. It was common for a legion to detach some sub-units from the main camp to strengthen other corps. In these cases, the detached subunits carried only the *vexillum*, and not the *aquila*, and were called, therefore, *vexillationes*. A miniature *vexillum*, mounted on a silver base, was sometimes awarded to officers as a recognition of their service upon retirement or reassignment.

Civilians could also be rewarded for their assistance to the Roman legions. In return for outstanding service, a citizen was given an arrow without a head. This was considered a great honour and would bring the recipient much prestige.



Reenactors portraying Roman legionaries of Legio XV Apollinaris.

Discipline

The military discipline of the legions was quite harsh. Regulations were strictly enforced, and a broad array of punishments could be inflicted upon a legionary who broke them. Many legionaries became devotees in the cult of the minor goddess *Disciplina*, whose virtues of frugality, severity and loyalty were central to their code of conduct and way of life.

Minor punishments

- **Castigatio** – being hit by the centurion with his staff or *animadversio fustium* (Tac. Annals I, 23)
- – *Reduction of rations* or to be forced to eat barley instead of the usual grain ration
- **Pecuniaria multa** – Reduction in pay, fines or deductions from the pay allowance
- – *Flogging* in front of the century, cohort or legion
- – *Whipping* with the *flagrum* (*flagellum*, *flagella*), or "short whip" — a much more brutal punishment than simple flogging. The "short whip" was used by slave volunteers, *volones*, who comprised the majority of the army in the later years of the Roman Empire.
- **Gradus deiectio** – Reduction in rank
- **Missio ignominiosa** – Dishonourable discharge
- – Loss of *time in service* advantages
- **Militiae mutatio** – Relegation to inferior service or duties.
- **Munerum indictio** – Additional duties

Major punishments

- *Fustuarium* — a sentence for desertion or dereliction of duty. The legionary would be stoned or beaten to death by cudgels, in front of the assembled troops, by his fellow soldiers, whose lives had been put in danger. Soldiers under sentence of *fustuarium* who escaped were not pursued, but lived under sentence of banishment from Rome.
- *Decimation* — a sentence carried out against an entire unit which had mutinied, deserted, or shown dereliction of duty. One out of every ten men, chosen by lots, would be beaten to death, usually by the other nine with their bare hands, who would be forced to live outside the camp and in some instances obliged to renew the military oath, the *sacramentum*.

Factors in the legion's success

- As Montesquieu wrote, "[I]t should be noted that the main reason for the Romans becoming masters of the world was that, having fought successively against all peoples, they always gave up their own practices as soon as they found better ones."^[7]

Examples of ideas that were copied and adapted include weapons like the gladius (Iberians) and warship design (Carthaginians), as well as military units such as heavy mounted cavalry and mounted archers (Parthians and Numidians)

- Roman organization was more flexible than those of many opponents. Over time, the legions effectively handled challenges ranging from cavalry, to guerrillas, to siege warfare.
 - Roman discipline, organization and systematization sustained combat effectiveness over a longer period. These elements appear throughout the legion in training, logistics, field fortification etc.
 - The Romans were more persistent and more willing to absorb and replace losses over time than their opponents. Wars with Carthage, the Parthians and most notably, the campaigns against Pyrrhus of Epirus, illustrate this.
 - Roman leadership was mixed, but over time it was often effective in securing Roman military success.
 - The influence of Roman military and civic culture, as embodied particularly in the heavy infantry legion, gave the Roman military consistent motivation and cohesion.
 - Strict, and more importantly, uniform discipline made commanding, maintaining, and replacing Roman legionaries a much more consistent exercise.
 - Roman military equipment, particularly armour, was thicker and far more ubiquitous, especially in the late Republican / Early Imperial era, than that of most of their opponents. Soldiers equipped with shields, helmets and highly effective body armor had a major advantage over warriors protected, in many cases, with nothing other than their shields, particularly in a prolonged engagement.
 - Roman engineering skills were second to none in ancient Europe, and their mastery of both offensive and defensive siege warfare, specifically the construction and investiture of fortifications, was another major advantage for the Roman legions.
 - Roman military training focused on the more effective thrusting of the sword rather than the slash, resulting in higher lethality in combat, and the military system of the Romans enabled them to have far higher kill rates than their foes.
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External links

- *UNRV's Roman Military* (<http://www.unrv.com/military.php>)

Auxiliaries (Roman military)

Auxiliaries (from Latin: *auxilia* = "help") formed the standing non-citizen corps of the Roman army of the Principate (30 BC–284 AD), alongside the citizen legions. By the 2nd century, the *auxilia* contained the same number of infantry as the legions and in addition provided almost all of the Roman army's cavalry and more specialised troops (especially light cavalry and archers). The *auxilia* thus represented three-fifths of Rome's regular land forces at that time. Like their legionary counterparts, auxiliary recruits were mostly volunteers, not conscripts.

Auxiliary troops were mainly recruited from the *peregrini*, *i.e.* free provincial subjects of the Roman Empire who did not hold Roman citizenship and constituted the vast majority

of the empire's population in the 1st and 2nd centuries (*ca.* 90% in the early 1st century). Auxiliaries also included some Roman citizens and probably barbarians (*barbari*, as the Romans called peoples located outside the Empire's borders). This was in contrast to the legions, which only admitted Roman citizens.

The *auxilia* developed from the varied contingents of non-Italian troops, especially cavalry, that the Roman Republic used in increasing numbers to support its legions after 200 BC. The Julio-Claudian period (30 BC–68 AD) saw the transformation of these motley temporary levies into a standing corps of regiments with standardised structure, equipment and conditions of service. By the end of this period, there were no significant differences between legionaries and most auxiliaries in terms of training, or thus combat capability.

Auxiliary regiments were often stationed in provinces other than the province in which they were originally raised, both for reasons of imperial security and to foster the process of Romanisation and integration of the provinces. The regimental names of many auxiliary units persisted into the 4th century, but by then the units in question were different in size, structure, and quality from their predecessors.

Historical development

Background: Roman Republic (to 30 BC)

The mainstay of the Roman republic's war machine was the manipular legion, a heavy infantry unit suitable for close-quarter engagements on more or less any terrain, which was probably adopted sometime during the Samnite Wars (343–290 BC).^[1] Despite its formidable strength, the legion had a number of deficiencies, especially a lack of cavalry. Around 200 BC, a legion of 4,200 infantry had a cavalry arm of only 300 horse (just 7% of the total force).^[2] This was because the class of citizens who could afford to pay for their own horse and equipment – the equestrian order, the second rank in Roman society, after the senatorial order – was relatively small. In addition the legion lacked missile forces such as slingers and archers.^[3] Until 200 BC, the bulk of a Roman army's cavalry was provided by Rome's regular Italian allies (*socii*), commonly known as the "Latin" allies, which made up the Roman military confederation. This was Rome's defence system until the Social War of 91–88 BC. The Italian forces were



Roman auxiliary infantry crossing a river, probably the Danube, on a pontoon bridge during the emperor Trajan's Dacian Wars (101–106 AD). They can be distinguished by the oval shield (*clipeus*) they were equipped with, in contrast to the rectangular *scutum* carried by legionaries. Panel from Trajan's Column, Rome

organised into *alae* (literally: "wings", because they were generally posted on the flanks of the Roman line of battle). An allied *ala*, commanded by 3 Roman *praefecti sociorum*, was similar or slightly larger in infantry size (4–5,000 men) to a legion, but contained a more substantial cavalry contingent: 900 horse, three times the legionary contingent. Since a pre-Social War consular army always contained an equal number of legions and *alae*, 75% of its cavalry was provided by the Latin allies. The overall cavalry element, *ca.* 12% of the total force (2,400 out of a normal consular army of approximately 20,000 total effectives), was greater than in most peninsular Italian forces, but well below the overall 21% cavalry component that was typical of the Principate army (80,000 cavalry out of 380,000 total effectives in early the 2nd century).^{[4][5]}

The Roman/Latin cavalry was sufficient while Rome was in conflict with other states in the mountainous Italian peninsula, which also disposed of limited cavalry resources. But as Rome was confronted by external enemies that deployed far more powerful cavalry elements, such as the Gauls and the Carthaginians, the Roman deficiency in cavalry numbers could be a serious liability, which in the Second Punic War (218–202 BC) resulted in crushing defeats. Hannibal's major victories at the Trebia and at Cannae, were owed to his Spanish and Gallic heavy cavalry, which far outnumbered the Roman and Latin levies, and to his Numidians, light, fast cavalry which the Romans wholly lacked.^[6] The decisive Roman victory at Zama in 202 BC, which ended the war, owed much to the Numidian cavalry provided by king Massinissa, which outnumbered the Roman/Latin cavalry fielded by 2 to 1.^[7] From then, Roman armies were always accompanied by large numbers of non-Italian cavalry: Numidian light cavalry and, later, Gallic heavy cavalry. For example, Caesar relied heavily on Gallic and German cavalry for his Conquest of Gaul (58–51 BC).^[8]

As the role of native cavalry grew, that of Roman/Latin cavalry diminished. In the early 1st century BC, Roman cavalry was phased out altogether. After the Social War, the *socii* were all granted Roman citizenship, the Latin *alae* abolished, and the *socii* recruited into the legions.^[9] Furthermore, Roman equestrians were no longer required to perform cavalry service after this time.^[10] The late Republican legion was thus probably bereft of cavalry (a tiny cavalry force of 120 men was probably added back to the legion under Augustus).^[11]

By the outbreak of the Second Punic War, the Romans were remedying the legions' other deficiencies by using non-Italian specialised troops. Livy reports Hiero of Syracuse offering to supply Rome with archers and slingers in 217 BC.^[12] From 200 BC onwards, specialist troops were hired as mercenaries on a regular basis: *sagittarii* (archers) from Crete, and *funditores* (slingers) from the Balearic Isles almost always accompanied Roman legions in campaigns all over the Mediterranean.^[13]

The main other sources of non-Italian troops in the late Republic were subject provincials, allied cities and Rome's *amici* (satellite kings). During the late Republic, non-Italian units were led by their own native chiefs, and their internal organisation was left to their own commanders. The units varied widely in dress, equipment, and weapons. They were normally raised for specific campaigns and often disbanded soon afterwards, in a similar manner to the earlier *socii* militia legions.^[14]

Foundation of the auxilia under Augustus (30 BC–14 AD)

It appears that not all indigenous units were disbanded at the end of the civil war period (31 BC). Some of the more experienced units were kept in being to complement the legions, and became the core of the standing auxiliary forces that developed in the Julio-Claudian period.^[15] During the early rule of Augustus (27 BC onwards), the corps of regular auxilia was created. It was clearly inspired by the Latin forces of the pre-Social War Republic, as a corps of non-citizen troops parallel to the legions. But there were fundamental differences, the same as between Republican and Augustan legions. The Latin forces of the Republic were made up of part-time conscripts in units that would be raised and disbanded for and after particular campaigns. The Augustan auxilia were mainly volunteer professionals serving in permanent units.^[8]

The unit structure of the auxilia also differed from the Latin *alae*, which were like legions with a larger cavalry arm. Augustus however organised the auxilia into regiments the size of cohorts (a tenth the size of legions), due to the

much greater flexibility of the smaller unit size. Further, the regiments were of three types: *ala* (cavalry), *cohors (peditata)* (infantry) and *cohors equitata* (mixed cavalry/infantry).^[16]

The evidence for the size of the Augustus' new units is not clearcut, with our most precise evidence dating to the 2nd century, by which time the unit strengths may have changed. *Cohortes* were likely modelled on legionary cohorts *i.e.* six *centuriae* of about 80 men each (total about 480 men).^[17] *Alae* were divided into *turmae* (squadrons) of 30 (or 32) men, each under a *decurio* (literally: "leader of ten").^[18] This title which derives from the old Roman cavalry of the pre-Social War republic, in which each *turma* was under the command of three *decuriones*.^[19] *Cohortes equitatae* were simply infantry *cohortes* with a cavalry contingent of four *turmae* added.^[20]

Auxiliary regiments were now led by one *praefectus* (prefect), who could be either a native nobleman, who would probably be granted Roman citizenship for the purpose (*e.g.* the famous German war leader Arminius gained Roman citizenship probably by serving as an auxiliary prefect before turning against Rome); or a Roman, either of equestrian rank, or a senior centurion.^[21]

At the start of Augustus' sole rule (30 BC), the original core auxiliary units in the West were composed of warlike tribesmen from the Gallic provinces (especially Gallia Belgica, which then included the regions later separated to form the provinces Germania Inferior and Germania Superior), and from the Illyrian provinces (Dalmatia and Illyricum). By 19 BC, the Cantabrian and Asturian Wars were concluded, leading to the annexation of northern Hispania and Lusitania. Judging by the names of attested auxiliary regiments, these parts of the Iberian peninsula soon became a major source of recruits. Then the Danubian regions were annexed: Raetia (annexed 15 BC), Noricum (16 BC), Pannonia (9 BC) and Moesia (6 AD), becoming, with Illyricum, the Principate's most important source of auxiliary recruits for its entire duration. In the East, where the Syrians already provided the bulk of the Roman army's archers, Augustus annexed Galatia (25 BC) and Judaea: the former, a region in central Anatolia with a Celtic-speaking people, became an important source of recruits. In N. Africa, Egypt, Cyrene, and Numidia (25 BC) were added to the empire. Numidia (modern day Eastern Algeria) was home to the Mauri, the ancestors of today's Berber people. Their light cavalry (*equites Maurorum*) was highly prized and had alternately fought and assisted the Romans for well over two centuries: they now started to be recruited into the regular auxilia. Even more Mauri units were formed after the annexation of Mauretania (NW Algeria, Morocco), the rest of the Berber homeland, in 44 AD by emperor Claudius (ruled 41–54).^[22]

Recruitment was thus heavy throughout the Augustan period, with a steady increase in the number of units formed. By 23 AD, the Roman historian Tacitus records that there were roughly the same numbers of auxiliaries in service as there were legionaries.^[23] Since at this time there were 25 legions of *ca.* 5,000 men each, the auxilia thus amounted to *ca.* 125,000 men, implying *ca.* 250 auxiliary regiments.^[24]

Illyrian revolt (6–9 AD)

During the early Julio-Claudian period, many auxiliary regiments raised in frontier provinces were stationed in or near their home provinces, except during periods of major crises such as the Cantabrian Wars, when they were deployed temporarily in theatre. This carried the obvious risk if their own tribe or ethnic group rebelled against Rome (or attacked the Roman frontier from outside the Empire), auxiliary troops could be tempted to make common cause with them. The Romans would then be faced by an enemy that included units fully equipped and trained by themselves, thus losing their usual tactical advantages over tribal foes.^[25]

Arminius is the classic example at an individual level: after several years of serving in Rome's forces as prefect of an auxiliary unit, he used the military training and experience he had gained to lead a confederacy of German tribes against Rome, culminating in the destruction of three Roman legions in the Teutoberg Forest in 9 AD, and the abandonment of Augustus' strategy of annexing Germany as far as the Elbe river. (This strategy was never revived by later emperors).^[26]

At a collective level, the risk was even greater, as the hugely dangerous Illyrian revolt proved. The central Illyrian tribes were tough and spartan shepherds of the Bosnian mountains and excellent soldier-material. Their territory

formed part of the strategic province of Illyricum, recently expanded to include the territory of the Pannonii, an Illyrian tribe based on the west bank of the Danube who were subjugated by Rome in 12–9 BC. By the start of the Common Era, they were an important recruitment base for the auxilia.^[27] But discontent was festering among the Illyrian tribes due to what they saw as the rapacity of Roman tax officials.^[28] In 6 AD, several regiments of Dalmatae, a warlike Illyrian tribe, were ordered to gather in one place to prepare to join Augustus' stepson and senior military commander Tiberius in a war against the Germans. Instead they mutinied at the assembly point, and defeated a Roman force sent against them.^[29] The Dalmatae were soon joined by the Breuci, another Illyrian tribe that supplied several auxiliary regiments. They gave battle to a second Roman force from Moesia. They lost, but inflicted heavy casualties.^[30] The rebels were now joined by a large number of other Illyrian tribes. The Dalmatae attacked Salona and overran the Adriatic coast, defeating a Roman force and exposing the Roman heartland of Italy to the fear of a rebel invasion.^[31]

Augustus ordered Tiberius to break off operations in Germany and move his main army to Illyricum.^[32] When it became clear that even Tiberius' forces were insufficient, Augustus was obliged to raise a second task force under Tiberius' nephew Germanicus, resorting to the compulsory purchase and emancipation of thousands of slaves to find enough troops, for the first time since the aftermath of the Battle of Cannae two centuries earlier.^[33] The Romans had now deployed no less than 15 legions and an equivalent number of auxilia.^[34] This amounts to a total of *ca.* 150,000 men, including at least 50 auxiliary cohorts composed, exceptionally, of Roman citizens. These were men whose status or background was regarded by Augustus as unsuitable for recruitment into the legions: either natural-born citizens of the lowest category including vagrants and convicted criminals, or the freed slaves (Roman law accorded citizenship to the freed slaves of Roman citizens). These special units were accorded the title *civium Romanorum* ("of Roman citizens"), or *c.R.* for short. After the Illyrian revolt, these cohorts remained in being and recruited non-citizens like other auxiliary units, but retained their prestigious *c.R.* title.^{[16][35]} In addition, the regular forces were assisted by a large number of allied troops from neighbouring Thrace deployed by their king Rhometalces I, a Roman *amicus* (puppet king).^[36]

The Romans faced further reverses on the battlefield and a savage guerrilla war in the Bosnian mountains.^[37] It took them three years of hard fighting to quell the revolt, which was described by the Roman historian Suetonius as the most difficult conflict faced by Rome since the Punic Wars two centuries earlier.^[34] Tiberius finally succeeded in quelling the revolt in 9 AD. This was just in time: that same year Arminius destroyed Varus' three legions in Germany. The Roman high command had no doubt that Arminius would have formed a grand alliance with the Illyrians.^[38]

Despite the gravity of this rebellion, the Illyrians went on to become the backbone of the Roman army. By the 2nd century, with roughly half the Roman army deployed on the Danube frontier, the auxilia and legions alike were dominated by Illyrian recruits. In the 3rd century, Illyrians largely replaced Italians in the senior officer echelons of *praefecti* of auxiliary regiments and *tribuni militum* of legions. Finally, from 268 to 379 AD, virtually all emperors, including Diocletian and Constantine the Great were Romanised Illyrians from the provinces of Dalmatia, Moesia Superior and Pannonia. These were members of a military aristocracy, outstanding soldiers who saved the empire from collapse in the turbulent late 3rd century.^[39]

Later Julio-Claudians (14–68 AD)

Significant development of the auxilia appears to have taken place during the rule of the emperor Claudius (41–54 AD).

A minimum term of service of 25 years was established, at the end of which the retiring auxiliary soldier, and all his children, were awarded Roman citizenship.^[40] This is deduced from the fact that the first known Roman military diplomas date from the time of Claudius. This was a folding bronze tablet engraved with the details of the soldier's service record, which he could use to prove his citizenship.^[41] Claudius also decreed that prefects of auxiliary regiments must all be of equestrian rank, thus excluding centurions from such commands.^[40] The fact that auxiliary

commanders were now all of the same social rank as most *tribuni militum*, (military tribunes, a legion's senior staff officers, all of whom only one, the *tribunus laticlavius*, was of the higher senatorial rank), probably indicates that auxilia now enjoyed greater prestige. Indigenous chiefs continued to command some auxiliary regiments, and were probably granted equestrian rank for the purpose. It is also likely that auxiliary pay was standardised at this time, but we only have estimates for the Julio-Claudian period.^[40]

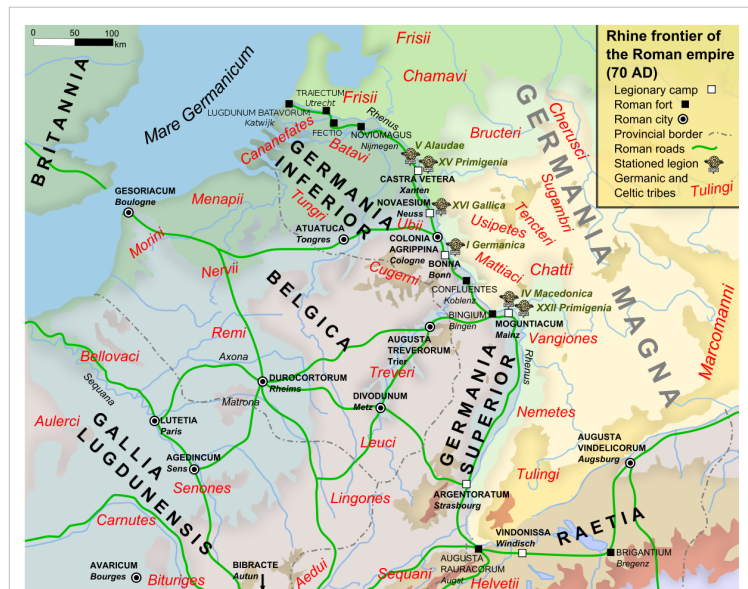
Auxiliary uniform, armour, weapons and equipment were probably standardised by the end of the Julio-Claudian period. Auxiliary equipment was broadly similar to that of the legions (see Section 2.1 below for possible differences in armour). By 68 AD, there was little difference between most auxiliary infantry and their legionary counterparts in equipment, training and fighting capability. The main difference was that auxilia contained combat cavalry, both heavy and light, and other specialized units that legions lacked.^[42]

Claudius annexed to the empire three regions that became important sources of auxiliary recruits: Britannia (43 AD), and the former client kingdoms of Mauretania (44) and Thracia (46). The latter became as important as Illyria as a source of auxiliary recruits, especially cavalry and archers. Britain in mid-2nd century contained the largest number of auxiliary regiments in any single province: about 60 out of about 400 (15%).^[4] By the rule of Nero (54–68), auxiliary numbers may have reached, by one estimate, about 200,000 men, implying about 400 regiments.^[40]

Revolt of the Batavi (69–70 AD)

The Batavi, a Germanic tribe, inhabited the region today known as Gelderland (Netherlands), in the Rhine river delta, then known as the *Insula Batavorum* ("Island of the Batavi", because surrounded by branches of the Rhine), part of the Roman province of Germania Inferior.^[43] They were a warlike people, skilled horsemen, boatmen and swimmers. In return for the unusual privilege of exemption from *tributum* (direct taxes on land and heads normally exacted from *peregrini*), they supplied a disproportionate number of recruits to the Julio-Claudian auxilia: one *ala* and eight *cohortes*.^[44] They also provided most of Augustus' elite personal bodyguard unit (the *Germani corpore custodes*), which continued in service until 68 AD. The Batavi auxilia amounted to about 5,000 men, implying that during the entire Julio-Claudian period, over 50% of all Batavi males reaching military age (16 years) may have enlisted in the auxilia.^[45]

Thus the Batavi, although just 0.05% of the total population of the empire of ca. 70 million in 23 AD,^[46] supplied about 4% of the total auxilia *i.e.* 80 times their proportionate share. They were regarded by the Romans as the very best (*fortissimi, validissimi*) of their auxiliary, and indeed all, their forces.^[47] In Roman service, both their cavalry and infantry had perfected a technique for swimming across rivers wearing full armour and weapons.^{[48][49]}



Rhine frontier of the Roman empire, 70 AD, showing the location of the Batavi in the Rhine delta region. Roman territory is shaded dark. Their homeland was called the *Insula Batavorum* by the Romans and corresponded roughly with modern Gelderland province, Neth. Their chief town was *Noviomagus* (Nijmegen, Neth.), a strategic prominence in an otherwise flat and waterlogged land that became the site of a Roman legionary fortress (housing the legion X Gemina) after the Batavi revolt ended in 70 AD. The name is of Celtic origin, meaning "new market", suggesting that the Germanic Batavi either displaced or subjugated an indigenous Gallic tribe

Julius Civilis (literally: "Julius the Citizen", clearly a Latin name adopted on gaining Roman citizenship, not his native one) was a hereditary prince of the Batavi and the prefect of a Batavi cohort. A veteran of 25 years' service, he had distinguished himself by service in Britain, where he and the eight Batavi cohorts had played a crucial role in both the Roman invasion in 43 AD and the subsequent subjugation of southern Britain.^[50]

By 69, however, Civilis, the Batavi regiments and the Batavi people had become utterly disaffected with Rome. After the Batavi regiments were withdrawn from Britain to Italy in 66, Civilis and his brother (also a prefect) were arrested by the governor of Germania Inferior on a fabricated accusation of sedition. The governor ordered his brother's execution, while Civilis, who as a Roman citizen had the right to appeal to the emperor, was sent to Rome in chains for judgement by Nero.^[51] He was released by Nero's overthrewer and successor, Galba, but the latter also disbanded the imperial bodyguard unit for their loyalty to Nero. This alienated several hundred crack Batavi troops, and indeed the whole Batavi nation who regarded it as a grave insult.^[52] At the same time, relations collapsed between the Batavi cohorts and the legion to which they had been attached since the invasion of Britain 25 years earlier (*XIV Gemina*). Their mutual hatred erupted in open fighting on at least two occasions.^[53]

At this juncture, the Roman empire was convulsed by its first major civil war since the Battle of Actium exactly a century earlier: the Year of the Four Emperors (69-70 AD). The governor of Germania Inferior, ordered to raise more troops, outraged the Batavi by attempting to conscript more Batavi than the maximum stipulated in their treaty. The brutality and corruption of the Roman recruiting-centurions (including incidents of sexual assault on Batavi young men) brought already deep discontent in the Batavi homeland to the boil.^[54]

Civilis now led his people in open revolt. Initially, he claimed he was supporting the bid for power of Vespasian, the general in command of the legions in Syria, whom Civilis had probably befriended when both were involved in the Roman invasion 25 years before (Vespasian was then commander of the legion *II Augusta*).^[55] But the uprising soon became a bid for independence.^[56] Civilis exploited the fact that some legions were absent from the Rhine area due to the civil war, and the rest under-strength. In addition, the Roman commanders and their rank-and-file soldiers were divided by loyalty to rival emperors.^[57] Civilis quickly won the support of the Batavi's neighbours and kinsmen, the Cananefates, who in turn won over the Frisii. First the rebel allies captured two Roman forts in their territory, and a cohort of Tungri defected to Civilis.^[58] Then two legions sent against Civilis were defeated when their companion Batavi *ala* defected to his side.^[43] The *Classis Germanica* (Rhine flotilla), largely manned by Batavi, was seized by Civilis.^[59] Most importantly, the eight Batavi cohorts stationed at Mainz with *XIV Gemina* mutinied and joined him, defeating at Bonn a Roman force that attempted to block their return to their homeland.^[60] By now, Civilis commanded at least 12 regiments (6,000 men) of Roman-trained and equipped auxiliary troops, as well as a much larger number of tribal levies. A number of German tribes from beyond the Rhine joined his cause.^[61] Several other German and Gallic units sent against him deserted, as the revolt spread to the rest of Gallia Belgica, including the Tungri, Lingones and Treviri tribes.^[62] He was able to destroy the two remaining legions in Germania Inferior, (*V Alaudae* and *XV Primigenia*).^[63]

By this stage Rome's entire position on the Rhine and even in Gaul was imperiled. Their civil war over, the Romans mustered a huge task force of eight legions (five dispatched from Italy, two from Spain and one from Britain) to deal with Civilis.^[64] Its commander Petillius Cerialis had to fight two difficult battles, at Trier and Xanten, before he could overrun the Batavi's homeland.^[65] Tacitus' surviving narrative breaks off as he describes a meeting on an island in the Rhine delta between Civilis and Cerialis to discuss peace terms.^[66] We do not know the outcome of this meeting or Civilis' ultimate fate. But in view of his former friendship with Vespasian, who had already offered him a pardon, and the fact that the Romans still needed the Batavi levies, it is likely that the terms were lenient by Roman standards.^[67]

Petilius Cerialis took a number of reconstituted Batavi units with him to Britain, and the Batavi regiments continued to serve with special distinction in Britain and elsewhere for the rest of the 1st century and beyond.^[68] Even as late as 395, units with the Batavi name, although long since composed of recruits from all over the empire, were still classified as elite *palatini*, e.g. the *equites Batavi seniores* (cavalry) and *auxilium Batavi seniores* (infantry).^[69]

Flavian era (69–96 AD)

The revolt of the Batavi appears to have led to a significant change in the Roman government's policy on auxiliary deployment. The revolt proved that in times of civil strife, when legions were far from their bases campaigning for rival claimants to the imperial throne, it was dangerous to leave provinces exclusively in the hands of auxiliary regiments recruited from the indigenous nation. During the Julio-Claudian period, auxiliary regiments had often been deployed away from their original home province.^[8] But in the Flavian period (69–96), this appears to have become standard policy.^[25] Thus in 70 AD five reconstituted Batavi regiments (one *ala* and four *cohortes*) were transferred to Britain under Petillius Cerialis, who had suppressed the Civilis revolt and then embarked on the governorship of the island.^[70] The great majority of regiments probably founded in the 1st century were stationed away from their province of origin in the second *e.g.* of 13 British regiments recorded in mid 2nd century, none were stationed in Britain.^[71] Furthermore, it appears that in the Flavian era native nobles were no longer permitted to command auxiliary units from their own nation.^[72]

After a prolonged period in a foreign province a regiment would become assimilated, since the majority of its new recruits would be drawn from the province in which it was stationed, or neighbouring provinces.^[25] Those same "British" units, mostly based on the Danube frontier, would by *ca.* 150, after almost a century away from their home island, be largely composed of Illyrian, Thracian and Dacian recruits. However, there is evidence that a few regiments at least continued to draw some recruits from their original home provinces in the 2nd century *e.g.* Batavi units stationed in Britain.^[73]

The Flavian period also saw the first formation of large, double-size units, both infantry and cavalry, of a nominal strength of 1,000 men (*cohors/ala milliaria*), though they were actually mostly smaller (720 for an *ala milliaria* and 800 for a *cohors milliaria*).^[40] These were the mirror image of the double-strength first cohorts of legions also introduced at this time. Such units remained a minority of the auxilia: in mid-2nd century, they constituted 13% of units, containing 20% of total manpower.^[74]



Tombstone of the Flavian-era *eques alaris* (*ala* cavalryman) **Titus Flavius Bassus**, son of Mucala. A *Dansala*, (i.e. member of the Thracian Denteleetae tribe), he belonged to the ***Ala Noricorum*** (originally raised from the Taurisci tribe of Noricum). He died at age 46 after 26 years' service, not having advanced beyond the lowest rank. Bassus' adopted Roman names, *Titus Flavius*, indicate that he had gained Roman citizenship, doubtless by serving the required 25 years in the auxilia. The names adopted would normally be those of the emperor ruling at the time of the citizenship award. In this case, they could refer to any of the 3 emperors of the Flavian dynasty (ruled 69–96), Vespasian and his two sons, Titus and Domitian, all of whom carried the same names. The arrangement of the scene, a rider spearing a man (the *motif* of the Thracian Hero), indicates that Bassus was a Thracian. Date: Late 1st century. Römisch-Germanisches Museum, Cologne, Germany

Later Principate (97–284)



Roman cavalry *spatha*, a longer sword (median blade length: 780 mm [30.7 in]), designed to give the rider a longer reach than the *gladius*^[75]

In 106 AD, emperor Trajan finally defeated the Dacian kingdom of Decebalus and annexed it as the Roman province of Dacia Traiana. By mid 2nd century, there were 44 auxiliary regiments stationed there, about 10% of the total auxilia. In Britain there were 60. Together these two provinces contained about a quarter of the total auxiliary regiments.^[4]

There is some discrepancy about the precise size of the auxilia during the rule of Trajan's successor, Hadrian (117-138) between the two most up-to-date global analyses of the Roman auxilia, by Spaul (2000) and Holder (2003)

ESTIMATES OF ROMAN AUXILIA NUMBERS (mid 2nd century)

Author	No. Alae	No. Cohortes	Total no. units	Total cavalry	Total infantry	Total effectives
J. Spaul (2000) ^[76]	80	247	327	56,160	124,640	180,800
P. A. Holder (2003) ^[4]	88	279	367	74,624	143,200	217,624

NOTE: Manpower figures exclude officers (centurions and decurions), which would have numbered about 3,500 men overall.

In addition, Holder believes that a further 14 *cohortes*, which are attested under Trajan, immediately before Hadrian's rule, but not during or after it, were probably in existence at this time, giving a total of 381 units and 225,000 effectives. The discrepancy between the two scholars is due to: (i) Interpretation of units with the same name and number, but attested in different provinces in the same period. Spaul tends to take a more cautious approach and to assume such are the same unit moving base frequently, while Holder tends to regard them as separate units which acquired the same number due to double (or triple) seriation. (ii) Assumptions about how many *cohortes* were *equitatae*. Spaul accepts only those *cohortes* specifically attested as *equitatae* i.e., about 40% of recorded units. Holder estimates that at least 70% of *cohortes* contained cavalry contingents by the early 2nd century^[77]

Even according to the more conservative estimate, the auxilia were by this time significantly larger than the legions, which contained *ca.* 155,000 effectives (28 legions of 5,500 men each) at this time, of which just 3,360 were cavalry. (For a detailed breakdown, see section 4: Auxilia deployment in the 2nd century, below).

During the second half of the 2nd century, the Roman army underwent considerable further expansion, with the addition of 5 new legions (27,500 men) to a peak of 33.^[78] An equivalent number of auxilia (*i.e.* 50–60 new regiments) were probably added, perhaps reaching a peak of *ca.* 440 regiments and over 250,000 effectives by the

end of Septimius Severus's rule (211 AD).^[5]

The likely growth of the Roman auxilia may be summarised as follows:

ROMAN ARMY NUMBERS 24–305 AD

Army corps	Tiberius 24 AD	Hadrian ca. 130 AD	S. Severus 211 AD	3rd c. crisis ca. 270 AD	Diocletian 284–305
LEGIONS	125,000 ^[79]	155,000 ^[80]	182,000 ^[81]		
AUXILIA	125,000 ^[82]	218,000 ^[83]	250,000 ^[84]		
PRAETORIAN GUARD	~5,000 ^[85]	~10,000 ^[86]	~10,000		
Total Roman Army	255,000^[87]	383,000^[88]	442,000^[89]	290,000?^[90]	390,000^[91]

NOTE: Figures are based on official (not actual) unit strengths and exclude Roman Navy effectives and barbarian *foederati*.

During the 2nd century some units with the new names *numerus* ("group") and *vexillatio* ("detachment") appear in the diploma record.^[92] Their size is uncertain, but was likely smaller than the regular *alae* and *cohortes*, as originally they were probably detachments from the latter, acquiring independent status after long-term separation. As these units are mentioned in diplomas, they were presumably part of the regular auxiliary organisation.^[93] But *numeri* was also a generic term used for barbarian units outside the regular auxilia. (see section 2.4 Irregular units, below).

In 212, the *constitutio Antoniniana* (Antonine decree) of emperor Caracalla granted Roman citizenship to all the free inhabitants of the Empire – the *peregrini* – thus abolishing their second-class status.^[94] But there is no evidence that the citizens-only rule for legions was also abolished at this time. The legions simply gained a much wider recruitment base, as they were now able to recruit any male free resident of the empire. Auxiliary units were now recruited mainly from Roman citizens, but probably continued to recruit non-citizen *barbari* from outside the Empire's borders.^[95] However, the citizens-only rule for legions appears to have been dropped some time during the 3rd century, as by the 4th century Romans and barbarians are found serving together in all units.^[96]

In the mid to late 3rd century, the army was afflicted by a combination of military disasters and of pestilence, the so-called Crisis of the Third Century. In 251–271 Gaul, the Alpine regions and Italy, the Balkans and the East were simultaneously overrun by Alamanni, Sarmatians, Goths and Persians respectively.^[97] At the same time, the Roman army was struggling with the effects of a devastating pandemic, probably of smallpox: the Plague of Cyprian which began in 251 and was still raging in 270, when it claimed the life of emperor Claudius II Gothicus. The evidence for an earlier pandemic, the Antonine Plague (also smallpox) indicates a mortality of 15–30% in the empire as a whole.^[98] The armies would likely have suffered deaths at the top end of the range, due to their close concentration of individuals and frequent movements across the empire.^[99] This probably led to a steep decline in military numbers, which only recovered at the end of the century under Diocletian (r. 284–305).^[100]

The recruitment shortfall caused by the crisis seems to have led to recruitment of barbarians to the auxilia on a much greater scale than previously. By the 4th century, it has been estimated that some 25% of regular army recruits were barbarian-born. In the elite *palatini* regiments anywhere between a third and a half of recruits may have been barbarian.^[96] This is likely a much greater proportion of foreigners than joined the auxilia in the 1st-2nd centuries.^[101] In the 3rd century, a small number of regular auxiliary units appear in the record that, for the first time, bear the names of barbarian tribes from outside the empire *e.g.* the *ala I Sarmatarum* attested in 3rd-century Britain.^[102] This was probably an offshoot of the 5,500 surrendered Sarmatian horsemen posted on Hadrian's Wall by emperor Marcus Aurelius in ca. 175.^[103] This unit may be an early example of a novel process whereby irregular units of *barbari* (*foederati*) were transformed into regular auxilia. This process intensified in the 4th century: the *Notitia Dignitatum*, a key document on the late Roman army, lists a large number of regular units with barbarian

names.^[104]

4th century

In the 4th century, the Roman army underwent a radical restructuring. In the rule of Diocletian (284–305), the traditional Principate formations of *legiones*, *alae* and *cohortes* appear to have been broken up into smaller units, many of which bore a variety of new names.^[105] Under Constantine I (r. 312–337) it appears that military units were classified into three grades based on strategic role and to some extent quality: *palatini*, elite units normally part of the *exercitus praesentales* (imperial escort armies); *comitatenses*, higher-grade interception forces based in frontier provinces; and *limitanei*, lower-grade border troops.^[106] (See Late Roman army).

The old Principate auxilia regiments provided the basis for units at all three grades. The *Notitia Dignitatum* lists about 70 *alae* and *cohortes* that retained their 2nd century names, mostly *limitanei*.^[107] But traces of other auxilia regiments can be found in the *praesentales* and *comitatenses* armies. For example, many of the new-style *auxilia palatina* infantry regiments, considered among the best units in the army, were probably formed from old-style auxiliary *cohortes*, which they appear to closely resemble.^[108]

The late 4th century writer on military affairs Vegetius complains of contemporary young men joining the "auxilia" in preference to the "legions" to avoid the latter's tougher training and duties.^[109] But it is unclear what types of units he was referring to. It is possible that those older terms were still popularly used (misleadingly) to mean *limitanei* and *comitatenses* respectively. In any event, his quote in no way describes accurately the Principate auxilia, many of which were of very high quality.^[16]

Unit types and structure

Regular unit types

The following table sets out the official, or establishment, strength of auxiliary units in the 2nd century. The real strength of a unit would fluctuate continually, but would likely have been somewhat less than the establishment most of the time.

ROMAN AUXILIARY REGIMENTS: TYPE, STRUCTURE AND STRENGTH^[110]

Unit type	Service	Unit commander	Sub-unit commander	No of sub-units	Sub-unit strength	Unit strength
Ala quingenaria	cavalry	praefectus	decurio	16 <i>turmae</i>	30 (32)	480 (512)
Ala milliaria	cavalry	praefectus	decurio	24 <i>turmae</i>	30 (32)	720 (768)
Cohors quingenaria	infantry	praefectus*	centurio	6 <i>centuriae</i>	80	480
Cohors milliaria	infantry	tribunus militum**	centurio	10 <i>centuriae</i>	80	800
Cohors equitata quingenaria	infantry plus cavalry contingent	praefectus	centurio (inf) decurio (cav)	6 <i>centuriae</i> 4 <i>turmae</i>	80 30.	600 (480 inf/120 cav)
Cohors equitata milliaria	infantry plus cavalry contingent	tribunus militum**	centurio (inf) decurio (cav)	10 <i>centuriae</i> 8 <i>turmae</i>	80 30	1,040 (800 inf/240 cav)

* *tribunus militum* in original c.R. *cohortes*^[111]

** *praefectus* in Batavi and Tungri *cohortes milliariae*^[111]

NOTE: Opinion is divided about the size of an *ala turma*, between 30 and 32 men. 30 was the size of a *turma* in the Republican cavalry and in the *cohortes equitata* of the Principate auxilia. Against this is a statement by Arrian that an *ala* was 512 strong.^[112] This would make an *ala turma* 32 men strong.

Cohortes

These all-infantry units were modelled on the cohorts of the legions, with the same officers and sub-units. It is a common misconception that auxiliary *cohortes* contained light infantry. Their defensive equipment was very similar to that of legionaries, consisting of metal helmet and metal cuirass (chain-mail or scale). Some auxiliaries were also equipped with the *lorica segmentata*, the standard but not exclusive legionary's body-armor.^[113]

There is no evidence that auxiliary infantry fought in a looser order than legionaries.^[16] It appears that in a set-piece battle-line, auxiliary infantry would normally be stationed on the flanks, with legionary infantry holding the centre e.g. as in the Battle of Watling Street (60 CE), the final defeat of the rebel Britons under queen Boudicca.^[114] This was a tradition inherited from the Republic, when the precursors of auxiliary *cohortes*, the Latin *alae*, occupied the same position in the line.^[115] The flanks of the line required equal, if not greater, skill to hold as the centre.

Alae

During the Principate period of the Roman Empire (30 BC - AD 284), the all-mounted *alae* contained the elite cavalry of the army.^[16] They were specially trained in elaborate manoeuvres, such as those displayed to the emperor Hadrian during a documented inspection. They were best-suited for large-scale operations and battle, during which they acted as the primary cavalry escort for the legions, which had almost no cavalry of their own. They were heavily protected, with chain-mail or scale body armour, a cavalry version of the infantry helmet (with more protective features) and oval shield. Their offensive weapons included a spear (*hasta*), a cavalry sword (*spatha*), which was much longer than the infantry *gladius* to provide greater reach and a long dagger. The elite status of an *alaris* is shown by the fact that he received 20% greater pay than his counterpart in a cohort, and than a legionary infantryman.

Cohortes equitatae

These were *cohortes* with a cavalry contingent attached. There is evidence that their numbers expanded with the passage of time. Only about 40% of attested *cohortes* are specifically attested as *equitatae* in inscriptions, which is probably the original Augustan proportion. A study of units stationed in Syria in the mid 2nd century found that many units which did not carry the *equitata* title did in fact contain cavalymen e.g. by discovery of a tombstone of a cavalryman attached to the cohort. This implies that by that time, at least 70% of *cohortes* were probably *equitatae*.^[77] The addition of cavalry to a cohort obviously enabled it to carry out a wider range of independent operations. A *cohors equitata* was in effect a self-contained mini-army.^[116]

The traditional view of *equites cohortales* (the cavalry arm of *cohortes equitatae*), as expounded by G.L. Cheesman, was that they were just a mounted infantry with poor-quality horses. They would use their mounts simply to reach the battlefield and then would dismount to fight.^[117] This view is today discredited. Although it is clear that *equites cohortales* did not match *equites alares* (*ala* cavalymen) in quality (hence their lower pay), the evidence is that they fought as cavalry in the same way as the *alares* and often alongside them. Their armour and weapons were the same as for the *alares*.^[118]

Nevertheless, non-combat roles of the *equites cohortales* differed significantly from the *alares*. Non-combat roles such as despatch-riders (*dispositi*) were generally filled by cohort cavalry.

Auxiliary specialised units

In the Republican period, the standard trio of specialised auxilia were Balearic slingers, Cretan archers and Numidian light cavalry. These functions, plus some new ones, continued in the 2nd century auxilia.

Heavily-armoured lancers

Equites cataphractarii, or simply *cataphractarii* for short, were the heavily-armoured cavalry of the Roman army. Based on Sarmatian and Parthian models, they were also known as *contarii* and *clibanarii*, although it is unclear whether these terms were interchangeable or whether they denoted variations in equipment or role. Together with new units of light mounted archers, the *cataphractarii* were designed to counter Parthian (and, in Pannonia, Sarmatian) battle tactics. Parthian armies consisted largely of cavalry. Their standard tactic was to use light mounted archers to weaken and break up the Roman infantry line, and then to rout it with a charge by the *cataphractarii* concentrated on the weakest point.^[119] The only special heavy cavalry units to appear in the 2nd century record are: *ala I Ulpia contariorum* and *ala I Gallorum et Pannoniorum cataphractaria* stationed in Pannonia and Moesia Inferior respectively in the 2nd century.^[120]

Light cavalry

From the Second Punic War until the 3rd century AD, the bulk of Rome's light cavalry (apart from mounted archers from Syria) was provided by the inhabitants of the northwest African provinces of Africa proconsularis and Mauretania, the Numidae or Mauri (from whom derives the English term "Moors"), who were the ancestors of the Berber people of modern Algeria and Morocco. They were known as the *equites*



Routed Sarmatian cataphracts (right) flee for their lives from Roman *alares* (auxiliary cavalrymen), during the Dacian Wars (AD 101-106). Note full-body scalar armour, also armoured caparison for horses (including eye-guards). The Sarmatians' lances (as well as the Romans') have disappeared due to stone erosion, but a sword is still visible, as is a bow carried by one man. It was apparently in the period following this conflict (perhaps as a result of the lessons learnt from it) that the Romans first established their own regular units of cataphracts, and deployed them in the Danubian region. They were most likely equipped as the Sarmatians.

Panel from Trajan's Column, Rome



Roman archers (top left) in action. Note conical helmets, indicating Syrian unit, and recurved bows. Trajan's Column, Rome

Maurorum or *Numidarum* ("Moorish or Numidian cavalry"). On Trajan's Column, Mauri horsemen, depicted with long hair in dreadlocks, are shown riding their small but resilient horses bare-back and unbridled, with a simple braided rope round their mount's neck for control. They wear no body or head armour, carrying only a small, round leather shield. Their weaponry cannot be discerned due to stone erosion, but is known from Livy to have consisted of several short javelins.^{[121][122]} Exceptionally fast and maneuverable, Numidian cavalry would harass the enemy by hit-and-run attacks, riding up and loosing volleys of javelins, then scattering faster than any opposing cavalry could pursue. They were superbly suited to scouting, harassment, ambush and pursuit.^[123] It is unclear what proportion of the Numidian cavalry were regular *auxilia* units as opposed to irregular *foederati* units.^[124]



Roman slingers (*funditores*) in action in the Dacian Wars. Detail from Trajan's Column, Rome

In the 3rd century, new formations of light cavalry appear, apparently recruited from the Danubian provinces: the *equites Dalmatae* ("Dalmatian cavalry"). Little is known about these, but they were prominent in the 4th century, with several units listed in the *Notitia Dignitatum*.

Camel troops

A unit of *dromedarii* ("camel-mounted troops") is attested from the 2nd century, the *ala I Ulpia dromedariorum milliaria* in Syria.^[125]

Archers

A substantial number of auxiliary regiments (32, or about 1 in 12 in the 2nd century) were denoted *sagittariorum*, or archer-units (from *sagittarii* lit. "arrow-men", from *sagitta* = "arrow"). These 32 units (of which 4 were double-strength) had a total official strength of 17,600 men. All three types of auxiliary regiment (*ala*, *cohors* and *cohors equitata*) could be denoted *sagittariorum*. Although these units evidently specialised in archery, it is uncertain from the available evidence whether all *sagittariorum* personnel were archers, or simply a higher proportion than in ordinary units. At the same time, ordinary regiments probably also possessed some archers, otherwise their capacity for independent operations would have been unduly constrained. Bas-reliefs appear to show personnel in ordinary units employing bows.^[126]

From about 218 BC onwards, the archers of the Roman army of the mid-Republic were virtually all mercenaries from the island of Crete, which boasted a long specialist tradition. During the late Republic (88-30 BC) and the Augustan period, Crete was gradually eclipsed by men from other, much more populous, regions subjugated by the Romans with strong archery traditions. These included Thrace, Anatolia and above all, Syria. Of the 32 *sagittarii* units attested in mid 2nd century, 13 have Syrian names, 7 Thracian, 5 from Anatolia, 1 from Crete and the remaining 6 of other or uncertain origin.^[127]

Three distinct types of archers are shown on Trajan's Column: (a) with scalar cuirass, conical steel helmet and cloak; (b) without armour, with cloth conical cap and long tunic; or (c) equipped in the same way as general auxiliary foot-soldiers (apart from carrying bows instead of javelins). The first type were probably Syrian or Anatolian units; the third type probably Thracian.^[128] The standard bow used by Roman auxilia was the recurved composite bow, a sophisticated, compact and powerful weapon.^[126]

Slingers

From about 218 BC onwards, the Republican army's slingers were exclusively mercenaries from the Balearic Islands, which had nurtured a strong indigenous tradition of slinging from prehistoric times. As a result, in classical Latin, *Baleares* (literally "inhabitants of the Balearic Islands") became an alternative word for "slingers" (*funditores*, from *funda* = "sling"). Because of this, it is uncertain whether the most of the imperial army's slingers continued to be drawn from the Balearics themselves, or, like archers, derived mainly from other regions.

Independent slinger units are not attested in the epigraphic record of the Principate.^[126] However, slingers are portrayed on Trajan's Column. They are shown unarmoured, wearing a short tunic. They carry a cloth bag, slung in front, to hold their shot (*glandes*).^[128]

Scouts

Exploratores ("reconnaissance troops", from *explorare* = "to scout"): Examples include two *numeri exploratorum* attested in the 3rd century in Britain: *Habitanco* and *Bremenio* (both names of forts). Little is known about such units.^[129]

Irregular allied forces

Throughout the Principate period, there is evidence of ethnic units of *barbari* outside the normal auxilia organisation fighting alongside Roman troops. To an extent, these units were simply a continuation of the old client-king levies of the late Republic: *ad hoc* bodies of troops supplied by Rome's puppet petty-kings on the imperial borders for particular campaigns. Some clearly remained in Roman service beyond the campaigns, keeping their own native leadership, attire and equipment and structure. These units were known to the Romans as *socii* ("allies"), *symmachiarii* (from *symmachoi*, Greek for "allies") or *foederati* ("treaty troops" from *foedus*, "treaty"). One estimate puts the number of *foederati* in the time of Trajan at about 11,000, divided into about 40 *numeri* (units) of about 300 men each. The purpose of employing *foederati* units was to use their specialist fighting skills.^[130] Many of these would have been troops of Numidian cavalry (see light cavalry above).

The *foederati* make their first official appearance on Trajan's Column, where they are portrayed in a standardised manner, with long hair and beards, barefoot, stripped to the waist, wearing long trousers held up by wide belts and wielding clubs. In reality several different tribes supported the Romans in the Dacian wars. Their attire and weapons would have varied widely. The Column stereotypes them with the appearance of a single tribe, probably the most outlandish-looking, to differentiate them clearly from the regular auxilia.^[131] Judging by the frequency of their appearance in the Column's battle scenes, the *foederati* were important contributors to the Roman operations in Dacia. Another example of *foederati* are the 5,500 captured Sarmatian cavalrymen sent by Emperor Marcus Aurelius (r. 161–180) to garrison a fort on Hadrian's Wall after their defeat in the Marcomannic Wars.^[132]

Recruitment, ranks and pay

The evidence for auxiliary ranks and pay is scant, even less than the patchy evidence for their legionary counterparts.

The available data may be summarised as follows:

AUXILIA RANKS AND PAY (mid 1st century)^[133]

Pay scale (as multiple of basic)	Cohors infantry rank (in ascending order)	Amount (denarii)	XXX	Ala rank (in ascending order)	Amount (denarii)
1 (<i>caligati</i> = "rankers")	<i>pedes</i> (infantryman)	188		<i>gregalis</i> (ala cavalryman)	263
1.5 (<i>sesquiplicarii</i> = "one-and-half-pay men")	<i>tesserarius</i> (corporal)	282		<i>sesquiplicarius</i> (corporal)	395
2 (<i>duplicarii</i> = "double-pay men")	<i>signifer</i> (centuria standard-bearer) <i>optio</i> (centurion's deputy) <i>vexillarius</i> (cohort standard-bearer)	376		<i>signifer</i> (turma standard-bearer) <i>curator?</i> (decurion's deputy) <i>vexillarius</i> (ala standard-bearer)	526
Over 5	<i>centurio</i> (centurion = centuria commander) <i>centurio princeps</i> (chief centurion) <i>beneficiarius?</i> (deputy cohort commander)	940 +		<i>decurio</i> (decurion = turma commander) <i>decurio princeps</i> (chief decurion) <i>beneficiarius?</i> (deputy ala commander)	1,315 +
50	<i>praefectus</i> or <i>tribunus</i> (cohort commander)	9,400		<i>praefectus</i> or <i>tribunus</i> (ala commander)	13,150

Common soldiers (*caligati*)

At the bottom end of the rank pyramid, rankers were known as *caligati* (lit: "sandal men" from the *caligae* or hob-nailed sandals worn by soldiers). Depending on the type of regiment they belonged to, they held the official ranks of *pedes* (foot soldier in a *cohors*), *eques* (cavalryman in a *cohors equitata*) and *gregalis* (*ala* cavalryman).^[134]

During the Principate, recruitment into the legions was restricted to Roman citizens only. This rule, which derived from the pre-Social War Republican army, was strictly enforced. The few exceptions recorded, such as during emergencies and for the illegitimate sons of legionaries, do not warrant the suggestion that the rule was routinely ignored.^[135]

In the 1st century, the vast majority of auxiliary common soldiers were recruited from the Roman *peregrini* (second-class citizens). In the Julio-Claudian era, conscription of *peregrini* seems to have been practiced alongside voluntary recruitment, probably in the form of a fixed proportion of men reaching military age in each tribe being drafted.^[136] From the Flavian era onwards, the *auxilia* were an all-volunteer force.^[137] Although recruits as young as 14 are recorded, the majority of recruits (66%) were from the 18–23 age group.^[138]

When it was first raised, an auxiliary regiment would have been recruited from the native tribe or people whose name it bore. In the early Julio-Claudian period, it seems that efforts were made to preserve the ethnic integrity of units, even when the regiment was posted in a faraway province. But in the later part of the period, recruitment in the region where the regiment was posted increased and became predominant from the Flavian era onwards.^[136] The regiment would thus lose its original ethnic identity.^[25] The unit's name would thus become a mere curiosity devoid of meaning, although some of its members might inherit foreign names from their veteran ancestors. This view has to be qualified, however, as evidence from military diplomas and other inscriptions shows that some units continued to recruit in their original home areas *e.g.* Batavi units stationed in Britain, where some units had an international membership.^[73] It also appears that the Danubian provinces (Raetia, Pannonia, Moesia, Dacia) remained key recruiting grounds for units stationed all over the empire.^{[139][140]}

It appears that Roman citizens were also regularly recruited to the *auxilia*. Most likely, the majority of citizen recruits to auxiliary regiments were the sons of auxiliary veterans who were enfranchised on their fathers' discharge.^[141] Many such may have preferred to join their fathers' old regiments, which were a kind of extended family to them, rather than join a much larger, unfamiliar legion. There are also instances of legionaries transferring to the *auxilia* (to a higher rank).^[142] The incidence of citizens in the *auxilia* would thus have grown steadily over time until, after the grant of citizenship to all *peregrini* in 212, auxiliary regiments became predominantly, if not



Tombstone of Marius son of Ructicus. The inscription states that he was a *miles* (ranker) of the Alpine infantry regiment **Cohors I Montanorum**, who died in his 25th year of service (i.e. in the final year of the minimum term for an auxiliary and just before qualifying for Roman citizenship). His heir, who erected the stone, is named *Montanus*, the same ethnic name as the regiment's, meaning a native of the eastern Alps, most likely the origin of the deceased. Note (top corners) the Alpine edelweiss flowers, called *stella Alpina* ("Alpine star") in Latin. These were either a regimental symbol, or a national symbol of the *Montani*. The crescent moon-and-star motif between the flowers may be either a regimental emblem or a religious symbol. Date: 1st century, probably *ante* 68. From Carinthia, Austria

exclusively, citizen units.

Less clearcut is the question of whether the regular auxilia recruited *barbari* (barbarians, as the Romans called people living outside the empire's borders). Although there is little evidence of it before the 3rd century, the consensus is that auxilia recruited barbarians throughout their history.^{[95][143]} In the 3rd century, a few auxilia units of clearly barbarian origin start to appear in the record *e.g.* *Ala I Sarmatarum*, *cuneus Frisiorum* and *numerus Hnaufredi* in Britain.^{[129][144]}

There existed a hierarchy of pay between types of auxiliary, with cavalry higher paid than infantry. One recent estimate is that in the time of Augustus, the annual pay structure was: *eques alaris* (*gregalis*) 263 *denarii*, *eques cohortalis* 225, and *cohors* infantryman 188.^[145] The same differentials (of about 20% between grades) seem to have existed at the time of Domitian (r. 81-96).^[146] However, Goldsworthy points out that the common assumption that rates of pay were universal across provinces and units is unproven. Pay may have varied according to the origin of the unit.^[147]

The remuneration of an auxiliary *pedes cohortalis* may be compared to a legionary's as follows:

REMUNERATION OF ROMAN COMMON FOOT SOLDIERS (about AD 70)^[148]

Remuneration item	legionary <i>pedes</i> : amount (<i>denarii</i>) (annualised)	XXX	auxiliary <i>pedes</i> amount (<i>denarii</i>) (annualised)
<i>Stipendium</i> (gross salary)	225		188
<i>Less</i> : Food deduction	60		60
<i>Less</i> : Equipment etc. deductions	50		50
Net disposable pay	115		78
<i>Plus</i> : <i>Donativa</i> (bonuses) (average: 75 <i>denarii</i> every 3 years)	25		none proven
Total disposable income	140		78
<i>Praemia</i> (discharge bonus: 3,000 <i>denarii</i>)	120		none proven

Gross salary was subject to deductions for food, clothing, boots and hay (probably for the company mules). It is unclear whether the cost of armour and weapons was also deducted, or borne by the army. Deductions left the soldier with a net salary of 78 *denarii*. This sum was sufficient, on the basis of the food deduction, to amply feed an adult for a year. In 84 AD Domitian increased basic legionary pay by 33% (from 225 to 300 *denarii*): a similar increase was presumably accorded to auxiliaries, boosting their net income to 140 *denarii*, *i.e.* more than two food allowances.^[149] It was entirely disposable, as the soldier was exempt from the poll tax (*capitatio*), did not pay rent (he was housed in fort barracks) and his food, clothing and equipment were already deducted. It should be borne in mind that most recruits came from peasant families living at subsistence level. To such persons, any disposable income would appear attractive.^[150] It could be spent on leisure activities, sent to relatives or simply saved for retirement.

There is no evidence that auxiliaries received the substantial cash bonuses (*donativum*) handed to legionaries on the accession of a new emperor and other occasions.^[151] Although irregular, these payments (each worth 75 *denarii* to a common legionary) averaged once every 7.5 years in the early 1st century and every three years later. Duncan-Jones has suggested that *donativa* may have been paid to auxiliaries also from the time of Hadrian onwards, on the grounds that the total amount of donative to the military increased sharply at that time.^[152] A very valuable benefit paid to

legionaries was the discharge bonus (*praemia*) paid on completion of the full 25 years' service. At 3,000 *denarii*, this was equivalent to ten years' gross salary for a common legionary after the pay increase of 84 AD. It would enable him to purchase a substantial plot of land. Again, there is no indication that auxiliaries were paid a discharge bonus. For auxiliaries, the discharge bonus was the grant of Roman citizenship, which carried important tax exemptions. However, Duncan-Jones argues that the fact that service in the *auxilia* was competitive with the legions (deduced from the many Roman citizens that joined the *auxilia*) that a discharge bonus may have been paid.^[153]

Junior officers (*principales*)

Below centurion/decurion rank, junior officers in the Roman army were known as *principales*. An auxiliary cohort's ranks appear the same as in a legionary *centuria*. These were, in ascending order: *tesserarius* ("officer of the watch"), *signifer* (standard-bearer for the *centuria*), *optio* (centurion's deputy) and *vexillarius* (standard-bearer for the whole regiment, from *vexillum*). In the *turmae* of *cohortes equitatae* (and of *alae*?), the decurion's second-in-command was probably known as a *curator*, responsible for horses and caparison.^[154] As in the legions, the *principales*, together with some regimental specialists, were classified in two pay-scales: *sesquiplicarii* ("one-and-a-half-pay men") and *duplicarii* ("double-pay men").^[145] These ranks are probably most closely resembled by the modern ranks of corporal and sergeant respectively.

Besides combat effectives, regiments also contained specialists, the most senior of whom were *sesquiplicarii* or *duplicarii*, the rest common soldiers with the status of *militiae immunes* ("exempt soldiers" *i.e.* exempt from normal duties). Ranking specialists included the *medicus* (regimental doctor), *veterinarius* (veterinary doctor, in charge of the care of horses, pack animals and livestock), *custos armorum* (keeper of the armoury), and the *cornicularius* (clerk in charge of all the regiment's records and paperwork).^[155]

Senior officers

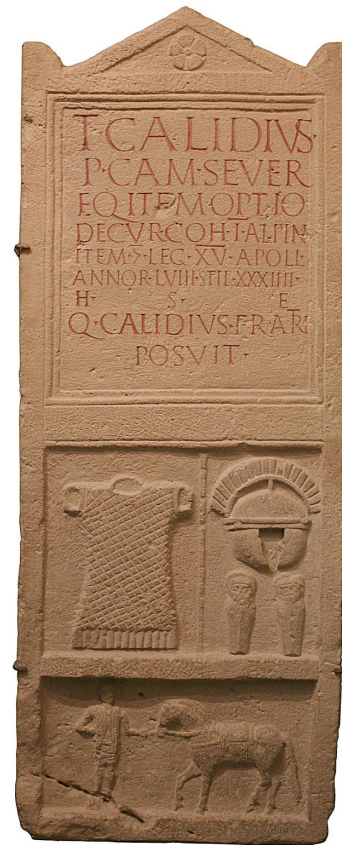
The limited evidence on auxiliary *centuriones* and *decuriones* is that such officers could be directly commissioned as well as promoted from the ranks. Many appear to have come from provincial aristocracies.^[156] Those rising from the ranks could be promotions from the legions as well as from the regiment's own ranks. In the Julio-Claudian period auxiliary *centuriones* and *decuriones* were a roughly equal split between citizens and *peregrini*, though later citizens became predominant due to the spread of citizenship among military families.^[157] Because *centuriones* and *decuriones* could rise from the ranks, they have often been compared to non-commissioned officers such as sergeants in modern armies. But this comparison certainly undervalues their role and social status. In addition to their military duties, centurions performed a wide range of administrative tasks, which was necessary in the absence of an adequate bureaucracy to support provincial governors. They were also relatively wealthy, due to their high salaries (see table above).^[158] A mid-level modern officer such as a major is probably a closer parallel. However, most of the surviving evidence concerns legionary centurions and it is uncertain whether their auxiliary counterparts shared their high status and non-military role.^[156]

There is little evidence about the pay-scales of auxiliary *centuriones* and *decuriones*, but these are also believed to have amounted to several times that of a *miles*.^[158]

Unlike a *legatus legionis* (who had an officer staff of 6 *tribuni militum* and one *praefectus castrorum*), an auxiliary *praefectus* does not appear to have enjoyed the support of purely staff officers. The possible exception is an attested *beneficiarius* ("deputy"), who may have been the praefectus' second-in-command, if this title was a regular rank and not simply an *ad hoc* appointment for a specific task. Also attached to the *praefectus* were the regiment's *vexillarius* (standard-bearer for the whole unit) and *cornucen* (horn-blower).^[154]

Commanders

It appears that in the 2nd century, the majority of auxiliary prefects were still of Italian origin.^[159] In contrast, the evidence for the 3rd century is that Italians provided less than a third of prefects.^[160] All prefects were members of the equestrian order, either by birth, or by attaining the property qualification (100,000 *denarii*, the equivalent of 400 years' gross salary for an auxiliary *alaris*) or by military promotion. The latter were the chief centurions of legions



Tombstone of Titus Calidius Severus, an auxiliary trooper who worked his way up from *eques* (common cavalryman) to *optio* of the **cohors I Alpinorum** (a mixed infantry/cavalry regiment from the western Alps). He then switched to a legion (presumably after gaining Roman citizenship after 25 of his 34 years of service) and became a centurion in **Legio XV Apollinaris** (it appears that legion cavalrymen used infantry ranks). He died at age 58, probably shortly after his discharge. Note the portrayal of his chain-mail armour, decurion's crested helmet and horse, led by his equerry, probably a slave. This soldier's long career shows that many auxiliaries served longer than the minimum 25 years, and sometimes joined legions. Erected by his brother, Quintus. Dates from *ante* 117, when XV Apollinaris was transferred from Carnuntum (Austria) to the East

(*centurio primus pilus*) who would normally be elevated to equestrian rank by the emperor after completing their single-year term as *primuspilus*.^[161]

Equestrians by birth would normally begin their military careers at *ca.* 30 years of age. Commands were held in a set sequence, each held for 3–4 years: prefect of an auxiliary *cohors*, *tribunus militum* in a legion and finally prefect of an auxiliary *ala*. In Hadrian's time, a fourth command was added, for exceptionally able officers, of prefect of an *ala milliaria*. Like officers senatorial rank, hereditary equestrians held civilian posts before and after their decade of military service, whereas non-hereditary officers tended to remain in the army, commanding various units in various provinces. By the 3rd century, most auxiliary prefects had exclusively military careers.^{[161][162]}

The pay of a *praefectus* of an auxiliary regiment in the early 2nd century has been estimated at over 50 times that of a *miles* (common soldier).^[111] (This compares to a full colonel in the British Army, who is currently paid about five times a private's salary).^[163] The reason for the huge gap between the top and the bottom of the pyramid is that Roman society was far more hierarchical than a modern one. A *praefectus* was not just a senior officer. He was also a Roman citizen (which most of his men were not) and, as a member of the equestrian order, an aristocrat. The social gulf between the *praefectus* and a *peregrinus* soldier was thus immense, and the pay differential reflected that fact.

Names, titles and decorations

Regimental names

The nomenclature of the great majority of regiments followed a standard configuration: unit type, followed by serial number, followed by name of the *peregrini* tribe (or nation) from whom the regiment was originally raised, in the genitive plural case *e.g.* *cohors III Batavorum* ("3rd Cohort of Batavi"); *cohors I Brittonum* ("1st Cohort of Britons"). Some regiments combine the names of two *peregrini* tribes, most likely after the merger of two previously separate regiments *e.g.* *ala I Pannoniorum et Gallorum* ("1st Wing of Pannonii and Gauls"). A minority of regiments are named after an individual, mostly after the first prefect of the regiment *e.g.* *ala Sulpicia* (presumably named after a prefect whose middle (*gens*) name was Sulpicius). The latter is also an example of regiments that did not have a serial number.^[164]

Titles

Regiments were often rewarded for meritorious service by the grant of an honorific title. The most sought-after was the prestigious *c.R.* (*civium Romanorum* = "of Roman citizens") title. In the latter case, all the regiment's members at the time, but not their successors, would be granted Roman citizenship. But the regiment would retain the *c.R.* title in perpetuity. Another common title was the *gens* name of the emperor making the award (or founding the regiment) *e.g.* *Ulpia*: the *gens* name of Trajan (Marcus Ulpius Traianus r.98–117). Other titles were similar to those given to the legions *e.g.* *pia fidelis* (*p.f.* = "dutiful and loyal").^[165]

Decorations

The Roman army awarded a variety of individual decorations (*dona*) for valour to its legionaries. *Hasta pura* was a miniature spear; *phalerae* were large medal-like bronze or silver discs worn on the cuirass; *armillae* were bracelets worn on the wrist; and torques were worn round the neck, or on the cuirass. The highest awards were the *coronae* ("crowns"), of which the most prestigious was the *corona civica*, a crown made of oak-leaves awarded for saving the life of a Roman citizen in battle. The most valuable award was the *corona muralis*, a crown made of gold awarded to the first man to scale an enemy rampart. This was awarded rarely, as such a man hardly ever survived.^[151]

There is no evidence that auxiliary common soldiers received individual decorations, although auxiliary officers did. Instead, the whole regiment was honoured by a title reflecting the type of award *e.g.* *torquata* (awarded a torque) or *armillata* (awarded bracelets). Some regiments would, in the course of time, accumulate a long list of titles and decorations *e.g.* *cohors I Brittonum Ulpia torquata pia fidelis c.R.*.^[165]

Deployment in 2nd century



IMPERIAL AUXILIA: Summary of known deployments c. 130 AD^[166]

Province	Approx. modern equivalent	Alae (no. mill.)	Cohortes (no. mill.)	Total aux. units	Auxiliary infantry	Auxiliary cavalry*	Total auxilia
Britannia	England/Wales	11 (1)	45 (6)	56	25,520	10,688	36,208
Rhine Frontier							
Germania Inferior	S Neth/NW Rhineland	6	17	23	8,160	4,512	12,672
Germania Superior	Pfalz/Alsace	3	22 (1)	25	10,880	3,336	14,216
Danube Frontier							
Raetia/Noricum	S Ger/Switz/Austria	7 (1)	20 (5)	27	11,220	5,280	16,500
Pannonia (Inf + Sup)	W Hungary/Slovenia	11 (2)	21 (4)	32	11,360	8,304	19,664
Moesia Superior	Serbia	2	10	12	4,800	1,864	6,664
Moesia Inferior	N Bulgaria/coastal Rom	5	12	17	5,760	3,520	9,280
Dacia (Inf/Sup/Poroliss)	Romania	11 (1)	32 (8)	43	17,920	7,328	25,248
Eastern Frontier							
Cappadocia	Central/East Turkey	4	15 (2)	19	7,840	3,368	11,208
Syria (inc Judaea/Arabia)	Syria/Leb/Palest/Jordan/Israel	12 (1)	43 (3)	55	21,600	10,240	31,840
North Africa							
Aegyptus	Egypt	4	11	15	5,280	3,008	8,288
Mauretania (inc Africa)	Tunisia/Algeria/Morocco	10 (1)	30 (1)	40	14,720	7,796	22,516
Internal provinces		2	15	17	7,200	2,224	9,424
TOTAL EMPIRE		88 (7)	293 (30)	381	152,260	71,468	223,728

Notes: (1) Table excludes about 2,000 officers (centurions and above). (2) Auxiliary cavalry nos. assumes 70% of cohortes were equitatae

Analysis

1. The table shows the importance of auxiliary troops in the 2nd century, when they outnumbered legionaries by 1.5 to 1.
2. The table shows that legions did not have a standard complement of auxiliary regiments^[167] and that there was no fixed ratio of auxiliary regiments to legions in each province. The ratio varied from six regiments per legion in Cappadocia to 40 per legion in Mauretania.
3. Overall, cavalry represented about 20% (including the small contingents of legionary cavalry) of the total army effectives. But there were variations: in Mauretania the cavalry proportion was 28%.
4. The figures show the massive deployments in Britannia and Dacia. Together, these two provinces account for 27% of the total auxilia corps.

Notes

- [1] Goldsworthy (2000) 44
- [2] Goldsworthy (2000) 51
- [3] Goldsworthy (2000) 49
- [4] Holder (2003) 145
- [5] Hassall (2000) 320
- [6] Goldsworthy (2000) 74–5
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- [10] Keppie (1996) 372
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- [13] G.L. Cheesman, *The Auxilia of the Roman Imperial Army* (Oxford, 1914), 8–9.
- [14] Keppie (1996) 373
- [15] Keppie (1996) 379
- [16] Goldsworthy (2000) 127
- [17] Holder (1980) 7
- [18] Goldsworthy (2000) 214
- [19] Goldsworthy (2003) 27
- [20] Holder (1980) 9
- [21] Keppie (1996) 382
- [22] Holder (1982) 110–3
- [23] Tacitus *Annales* IV.5
- [24] Goldsworthy (2003) 51
- [25] Keppie (1996) 396
- [26] Goldsworthy (2000) 119
- [27] Holder (1982) 145
- [28] Dio LV.29.1
- [29] Dio LV.29.2
- [30] Dio LV.29.3
- [31] Dio LV.29.4
- [32] Dio LV.30.1
- [33] Dio LV.31.1
- [34] Suetonius III.16
- [35] Goldsworthy (2003) 64
- [36] Dio LV.30.6
- [37] Dio LV.30.5
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- [45] Birley (2002) 43
- [46] Scheidel (2006) 9
- [47] Tacitus *Germania* 29.1 and *Historiae* II.28
- [48] Dio Cassius LXIX.9.6
- [49] Tacitus *Historiae* IV.12
- [50] Tacitus *Annales* IV.12
- [51] Tacitus *Historiae* IV.13
- [52] Tacitus *Historiae* II.5
- [53] Tacitus *Historiae* I.64, II.66
- [54] Tacitus *Historiae* IV.14
- [55] Tacitus *Historiae* IV.13
- [56] Tacitus *Historiae* IV.54
- [57] Tacitus *Historiae* IV.24, 27
- [58] Tacitus *Historiae* IV.15-6
- [59] Tacitus *Historiae* IV.16
- [60] Tacitus *Historiae* IV.20
- [61] Tacitus *Historiae* IV.21, 28
- [62] Tacitus *Historiae* IV.33, 66, 67
- [63] Tacitus *Historiae*
- [64] Tacitus *Historiae* IV.68
- [65] Tacitus *Historiae* V
- [66] Tacitus *Historiae* V.26
- [67] Birley (2002) 44
- [68] Tacitus *Agricola* 35-8
- [69] *Notitia Dignitatum* Titles IV and V
- [70] Mattingly (2006) 132
- [71] Roxan (2003); Holder (2006)
- [72] Keppie (1996) 394
- [73] Mattingly (2006) 168-9
- [74] Hassall (2000) 332-4
- [75] Goldsworthy (2003) 138
- [76] Spaul (2000) 526
- [77] Holder (2003) 119
- [78] Goldsworthy (2000) 152 (map): *Legiones* II and III Italica under Marcus Aurelius (r. 161-80) and I, II and III Parthica under Septimius Severus (r. 197-211)
- [79] 25 legions of 5,000 men each
- [80] 28 legions of 5,500 each (double-strength 1st cohorts introduced under Domitian (r. 81-96)
- [81] Goldsworthy (2000) 152 (map): 33 legions of 5,500 each
- [82] Tacitus *Annales* IV.5
- [83] Holder (2003) 120
- [84] J. C. Spaul *ALA* (1996) 257-60 and *COHORS* 2 (2000) 523-7 identify 4 *alae* and 20-30 *cohortes* raised in the late 2nd/early 3rd centuries
- [85] Goldsworthy (2003) 58: 9 cohorts of 480 men each plus German bodyguards
- [86] Goldsworthy (2003) 58: 9 double-cohorts of 800 men each plus 2,000 *equites singulares*
- [87] Implied by Tacitus *Annales*
- [88] Hassall (2000) 320 estimates 380,000
- [89] MacMullen *How Big was the Roman Army?* in *KLIO* (1979) 454 estimates 438,000
- [90] Assuming 33% drop in nos. due to war/disease
- [91] John Lydus *De Mensibus* I.47
- [92] Holder (2006) 985; Roxan (2003) 672
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- [95] Goldsworthy (2003) 74
- [96] Elton (1996) 148-52
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- [104] Jones (1964) 620
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- [109] Vegetius III.3
- [110] Hassall (2000) 332-4
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- [112] Arrian *Ars Tactics* 17.3
- [113] Hassall (2000) 339
- [114] Goldsworthy (2003), pp.52-53
- [115] Goldsworthy (2000), p.52
- [116] Goldsworthy (2003), p.168
- [117] Cheesman (1914)
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- [119] Goldsworthy (2000), p.140
- [120] Holder (2003), pp.135, 133
- [121] Livy XXXV.12
- [122] Rossi (1971), p.104
- [123] Sidnell (2006), p.172
- [124] CAH XII 212
- [125] Holder (2003), p.140
- [126] Goldsworthy (2003), p.137
- [127] Holder (2003)
- [128] Rossi (1971), p.102
- [129] Mattingly (2006) 223
- [130] Grant (1985), p.72
- [131] Rossi (1971), p.104.
- [132] Dio Cassius LXXI.16
- [133] Based on data in Goldsworthy (2003) 95-5; Holder (1980) 86-96; Elton (1996) 123
- [134] Davies (1988) 148
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- [140] RMD Vol V Appendix 4 e.g. RMD 127, 128
- [141] Mattingly (2006) 190
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- [144] www.roman-britain.org *List of auxiliary units in Britain*
- [145] Goldsworthy (2003) 94
- [146] Hassall (2000) 336
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- [148] Based on figs in Goldsworthy (2003) 94; Duncan-Jones (1994) 33-41
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External links

- Roman Military Diplomas Online (<http://www.romancoins.info/MilitaryDiploma.html>)
- Batavian auxiliaries re-enactors (<http://www.romanarmy.net/Auxilia.htm>)
- List of auxiliary units in Britain (http://www.roman-britain.org/military/british_cohortes.htm)
- Vindolanda Tablets Online (<http://vindolanda.csad.ox.ac.uk>)

Roman cavalry

Roman cavalry (Latin: *equites Romani*) refers to the horse mounted forces of the Roman army through the many centuries of its existence.

Early cavalry (to ca. 338 BC)

Romulus supposedly established a cavalry regiment of 300 men called the *Celeres* ("the Swift Squadron") to act as his personal escort, with each of the three tribes supplying a *centuria* (century; company of 100 men). This cavalry regiment was supposedly doubled in size to 600 men by King Tarquinius Priscus (conventional dates 616-578 BC).^[1] According to Livy, Servius Tullius also established a further 12 *centuriae* of cavalry.^[2] But this is unlikely, as it would have increased the cavalry to 1,800 horse, implausibly large compared to 8,400 infantry (in peninsular Italy, cavalry typically constituted about 8% of a field army).^[3] This is confirmed by the fact that in the early Republic the cavalry fielded remained 600-strong (2 legions with 300 horse each).^[4]



Re-enactor as Roman cavalryman

An important question is whether the royal cavalry was drawn exclusively from the ranks of the Patricians (*patricii*), the aristocracy of early Rome, which was purely hereditary.^[5] This is certainly the mainstream view among historians, starting with Mommsen. (However, Cornell considers the supporting evidence tenuous.)^[6] Since the cavalry was probably a patrician preserve, it follows that it probably played a critical part in the coup against the monarchy. Indeed, Alföldi suggests that the coup was carried out by the *Celeres* themselves.^[7] However, the patrician monopoly on the cavalry seems to have ended by around 400 BC, when the 12 *centuriae* of *equites* additional to the original 6 of regal origin were probably formed. Most likely patrician numbers were no longer sufficient to supply the ever-growing needs of the cavalry. It is widely agreed that the new *centuriae* were open to non-patricians, on the basis of a property rating.^[8]

According to the ancient Greek historian Polybius, whose *Histories* (written ca. 140s BC) are the earliest substantial extant account of the Republic, Roman cavalry was originally unarmoured, wearing only a tunic and armed with a light spear and ox-hide shield which were of low quality and quickly deteriorated in action.^[9]

Republican cavalry (338-88 BC)

Recruitment

As their name implies, the *equites* were liable to cavalry service in the Polybian legion. *Equites* originally provided a legion's entire cavalry contingent, although from an early stage, when *equites* numbers had become insufficient, large numbers of young men from the First Class of commoners were regularly volunteering for the service, which was considered more glamorous than the infantry.^[10] By the time of the Second Punic War, it is likely that all members of the First Class served in the cavalry, since Livy states that members of Class I were required to equip

themselves with a round shield (*clipeus*), rather than the oblong shield (*scutum*) required of the other classes - and all images of cavalrymen of this period show round shields.^[11] It appears that *equites equo privato* (i.e. First Class members) were required to pay for their own equipment and horse, but that the latter would be refunded by the state if it was killed in action.^[12] Cavalrymen in service were paid 1 *drachma* per day, triple the infantry rate, and were liable to a maximum of 10 campaigning seasons' military service, compared to 16 for the infantry.^[13]

Unit size and structure

Each Polybian legion contained a cavalry contingent of 300 horse, which does not appear to have been officered by an overall commander.^[14] The cavalry contingent was divided into 10 *turmae* (squadrons) of 30 men each. The squadron members would elect as their officers 3 *decuriones* ("leaders of 10 men"), of whom the first to be chosen would act as the squadron's commander and the other two as his deputies.^[15] From the available evidence, the cavalry of a Polybian legion (and presumably confederate cavalry also) was armoured and specialised in the shock charge.^[16]

Equipment

Pictorial evidence for the equipment of Republican cavalry is scant and leaves several uncertainties. The earliest extant representations of Roman cavalrymen are found on a few coins dated to the era of the Second Punic War (218-201 BC). In one, the rider wears a variant of a Corinthian helmet and appears to wear greaves on the legs. His body armour is obscured by his small round shield (*parma equestris*). It was probably a bronze breastplate, as a coin of 197 BC shows a Roman cavalryman in Hellenistic composite cuirass and helmet. But the Roman cavalry may already have adopted chain mail armour (*lorica hamata*) from the Celts, who are known to have been using it as early as ca. 300 BC. Mail had certainly been adopted by ca. 150 BC, as Polybius states that the First Class were expected to provide themselves with chain mail cuirasses,^[17] and the monument erected at Delphi by L. Aemilius Paullus to commemorate his victory at the battle of Pydna (168 BC) depicts Roman cavalrymen in mail.^[18] However, a coin of 136 BC and the Lacus Curtius bas-relief of the same period show knights in composite bronze cuirasses.

There is similar uncertainty as to whether cavalryman carried shields (not generally used by Greek cavalry until after ca. 250 BC) and the related question of whether they carried long lances (which normally precluded shields, as they would often be held double-handed) or shorter spears, the *doru* mentioned by Polybius.^{[19][20]} Most representations show cavalrymen with the small *parma equestris* type of shield, but the Ahenobarbus monument of 122 BC and the coin of 136 BC shows cavalrymen without shields. Sidnell suggests that, since *equites* were expected to provide their own equipment, they may have chosen their own type and combination of armour and weapons e.g. long lance with no shield or short spear with shield.^[21] But the evidence is too scant to draw any firm conclusions.

Although there is no pictorial evidence, it is certain from literary accounts that *equites* carried swords, most likely the same *gladii hispanienses* (Spanish swords) used by the infantry^[22] or the longer *spatha*. The Ahenobarbus monument also shows a cavalryman with a dagger (*pugio*). There is no evidence that *equites* carried bows and arrows and the Romans probably had no mounted archers before they came into contact with Parthian forces after 100 BC.

Campaign record

There is a misconception that Roman Republican cavalry was inferior to other cavalry and that they were just to support their far superior infantry. However, Philip Sidnell, argues that this view is misguided and that the cavalry was a powerful and crucial asset to the Republican army.^[23]

Sidnell argues that the record shows that Roman cavalry in Republican times were a strong force in which they bested higher reputed cavalry of the time. Examples include the Heraclea (280 BC), in where the Roman cavalry dismayed the enemy leader Pyrrhus by gaining the advantage in a bitterly contested melee against his Thessalian cavalry, then regarded as the finest in the world, and were only driven back when Pyrrhus deployed his elephants, which panicked the Roman horses.^[24]

A key reason for some historians' disparagement of the Roman cavalry were the crushing defeats, at the Trebia and at Cannae, that it suffered at the hands of the Carthaginian general Hannibal during the latter's invasion of Italy (218-6 BC) which were only rendered possible because of a powerful cavalry force. But Sidnell argues that this is only because of a consistent numerical superiority in cavalry. Another disadvantage for the Romans in the Second Punic War was that their respective cavalry were heavily armoured shock cavalry, used to the rudimentary tactic of charging. This, however useful against an infantry that has been routed or is flanked, failed against Hannibal's nimble, Numidian light cavalry that used a skilful, elaborate series of movements that consistently defeated the Roman cavalry.

The Second Punic War placed unprecedented strains on Roman manpower, not least on the over 10,000+ *drachmae* First Class which provided the cavalry. During Hannibal's apocalyptic march through Italy (218-6 BC), thousands of Roman cavalrymen were killed on the battlefield. The losses were especially serious for the knights properly so-called (*equo publico*): Livy relates how, after Cannae, the gold rings of dead Roman knights formed a pile one *modius* (ca. 9 litres) large.^[25] In the succeeding years 214-203 BC, the Romans kept at least 21 legions in the field at all times, in Italy and overseas (and 25 legions in the peak year).^[26] This would have required the knights to provide 220 senior officers (120 *tribuni militum*, 60 *decuriones* and 60 *praefecti sociorum*). It was probably from this time that the 18 *centuriae* of knights became largely an officer class, while the 6,300 Roman cavalrymen required were raised from the rest of the First Class.

The cavalry of Roman armies before the Second Punic War had been exclusively Roman and confederate Italian, with each holding one wing of the battleline (the Romans usually holding the right wing). After that war, Roman/Italian cavalry was always complemented by allied native cavalry (especially Numidia), and was usually combined on just one wing. Indeed, the allied cavalry often outnumbered the combined Roman/Italian force e.g. at Zama, where the 4,000 Numidians held the right, with just 1,500 Romans/Italians on the left.^[27] One reason was the lessons learnt in the war, namely the need to complement heavy cavalry with plenty of light, faster horse, as well as increasing the cavalry share when engaging with enemies with more powerful mounted forces. It was also inevitable that, as the Roman Republic acquired an overseas empire and the Roman army now campaigned entirely outside Italy, the best of non-Italian cavalry would be enlisted in increasing numbers, including (in addition to Numidians) Gallic, Spanish and Thracian horse.^[28] Towards the end of the republic and the beginning of the Roman Empire, the Roman cavalry itself was rendered less and less of a powerful force, with Rome meeting its cavalry needs with auxiliary, allied cavalry instead.

Nevertheless, Roman and Italian confederate cavalry continued to form an essential part of a Roman army's line-up for over a century. They were again, less successful against elusive tribal cavalry such as the Lusitanians under Viriathus in their bitter resistance to Roman rule (151-140 BC) and the Numidians themselves under king Jugurtha during the latter's rebellion (112-105 BC), when they were obliged to rely heavily on their own Numidian allied horse^[29] and the Romans were deprived of their strongest cavalry.

End of the citizen cavalry

The Jugurthine War is the last war in which Roman/Italian confederate cavalry is attested as having played a significant part. After that references to the citizen cavalry become rare and the Roman army seems to have become largely dependent on non-citizen cavalry, either recruited in the subject provinces or supplied by allied kings. The conventional explanation is that legionary cavalry was abolished as part of the so-called army reforms of Gaius Marius of the army around 107 BC and entirely replaced by native allied cavalry.^[30] But the "Marian reforms" are a myth invented by modern historians. There is no evidence that Marius abolished the manipular structure of legions in favour of cohorts, or turned the army from a conscript into a professional force, or removed the property qualification for service in the legions (the latter had been progressively reduced, and anyway largely ignored, since the 2nd Punic War).^{[31][32]} Even less can it be said that he abolished the citizen cavalry, since it is attested under Marius at the Battle of Vercellae (101 BC) and in 82 BC during the civil war between Sulla and Pompey.^{[33][34]} Far more significant for the army's structural development was the grant of Roman citizenship to all of Rome's Italian confederates after the Social War (91-88 BC). This led to the abolition of the old Italian confederate *alae* and the recruitment of all Italians into the legions. For the cavalry, the abolition of the *alae* had the radical result of reducing the Roman/Italian cavalry to just a quarter of its previous size, since legions contained only a third as many horse as confederate *alae*. Legionary cavalry was thus reduced to a fraction of a Roman army's overall cavalry complement: a consular army of 2 legions now contained about 20% cavalry (i.e. ca. 4,000 horse), of which, at most, only 600 were Romans. Indeed, the Roman element may now have numbered just 240, as it is possible that around this time, the legionary cavalry contingent was reduced to 120. It also appears that from this time onwards, Roman knights were no longer levied for cavalry service, which was now recruited from Italian commoners.^[35] By the time of Gaius Julius Caesar's Gallic War (58-51 BC), it appears that legionary cavalry may have disappeared altogether, and that Caesar was entirely dependent on allied Gallic contingents for his cavalry operations.^[36] This is deduced from an incident in 58 BC when Caesar was invited to a parley with the German king Ariovistus and needed a cavalry escort. Since he didn't yet trust the allied Gallic cavalry under his command, he instructed them to lend their horses to some members of the Tenth Legion, which thereafter acquired the nickname *equestris* ("mounted legion").^[37] (However, this incident leaves open the possibility that Roman cavalry still existed, but was not large enough to satisfy the needs of the moment).

The question arises as to why the Romans allowed their citizen cavalry to lapse in this way, given its record as a highly effective and useful force. The main reason is probably the limited pool of available *equites* and First Class members. The *equites* had long since become exclusively an officer class (a role they retained throughout the Principate), as the empire had become simply too large and complex for aristocrats to serve as ordinary troopers. At the same time, many of the First Class of commoners had developed major business interests and had little time for military service. Although Italian commoners of the lower classes could, of course, have been recruited and trained as cavalymen in larger numbers, that must have seemed costly and unnecessary when subject countries such as Gaul, Spain, Thrace and Numidia contained large numbers of excellent native cavalry which could be employed at much lower pay than citizens.^[38]

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Defence-in-depth (Roman military)

Defence-in-depth is the term used by American political analyst Edward Luttwak (born 1942) to describe his theory of the defensive strategy employed by the Late Roman army in the 3rd and 4th centuries AD.

Luttwak's *Grand Strategy of the Roman Empire* (1976) launched the thesis that in the 3rd and early 4th centuries, the empire's defence strategy mutated from "forward defence" (or "preclusive defence") in the Principate to "defence-in-depth" in the 4th century.

Thesis

According to this view, the Principate army had relied on neutralizing imminent barbarian incursions before they reached the imperial borders. This was achieved by stationing units (both legions and auxilia) right on the border and establishing and garrisoning strategic salients beyond the borders (such as the Agri Decumates in SW Germany). The response to any threat would thus be a pincer movement into barbarian territory: large infantry and cavalry forces from the border bases would immediately cross the border to intercept the coalescing enemy army; simultaneously the enemy would be attacked from behind by crack Roman cavalry (*alae*) advancing from the strategic salient(s).^[1] This system obviously required first-rate intelligence of events in the barbarian borderlands, which was provided by a system of watch towers in the strategic salients and by continuous cross-border scouting operations (*explorationes*).

According to Luttwak, the forward defence system was always vulnerable to unusually large barbarian concentrations of forces, as the Roman army was too thinly spread along the enormous borders to deal with such threats. In addition, the lack of any reserves to the rear of the border entailed that a barbarian force that successfully penetrated the perimeter defenses would have unchallenged ability to rampage deep into the empire before Roman reinforcements could arrive to intercept them.^[2] The first major challenge to forward defense was the great invasion of Sarmatians (Quadi and Iazyges) and Marcomanni across the Danube in 166-7, which began the Marcomannic Wars. The barbarians reached as far as Aquileia in northeastern Italy and were not finally expelled from the empire until 175. But the response of the imperial high command was not to change the forward defence strategy, but to reinforce it (by the founding of 2 new legions under Marcus Aurelius and 3 more under Septimius Severus and probably matching auxiliary forces).^[3] It was only after the catastrophic military crises of 251-71 that the Roman command under Diocletian turned to defence-in-depth: but only out of necessity, not conviction, as there were attempts to return to forward defence as late as Valentinian I (ruled 364-75).^[4] Forward defence had become simply too costly to maintain, especially with the emergence of a more powerful and expansionist Persian empire (the Sassanids) which required greater deployments in the East.

The essential feature of defence-in-depth, according to Luttwak, was the acceptance that the Roman frontier provinces themselves would become the main combat zone in operations against barbarian threats, rather than the barbarian lands across the border.^[4] Under this strategy, border forces would not attempt to repel a large incursion. Instead, they would retreat into fortified strongholds and wait for mobile forces (*comitatenses*) to arrive and intercept the invaders. Border forces would be substantially weaker than under forward defence, but their reduction in numbers (and quality) would be compensated by the establishment of much stronger fortifications to protect themselves: hence the abandonment of the old "playing-card" rectangular design of Roman fort. The new forts were so designed that they could only be taken with the use of siege engines (which barbarians generally lacked): square or even circular layout, much higher and thicker walls, wider perimeter berms and deeper ditches; projecting towers to allow enfilading fire; and location in more defensible points, such as hilltops. At the same time, many more small forts were established in the hinterland, especially along roads, to impose delays on the invaders. Also, fortified granaries were built to store food safely and deny supplies to the invaders. Finally, the civilian population of the province was protected by providing walls for all towns, many villages and even some villas (large country houses); some pre-Roman hillforts, long since abandoned, were re-occupied in the form of new Roman walled settlements.^[5]

The invading force would thus find itself in a region peppered with strongholds in enemy hands and where it could not easily get access to sufficient supplies. If the invaders ignored the strongholds and advanced, they risked sorties and attacks in the rear. If they attempted to besiege the strongholds, they would give the mobile troops valuable time to arrive. Overall, the aim of defence-in-depth was to provide an effective defence system at a sustainable cost, since defence-in-depth required much lower troop deployments than forward defence. To be more precise, the cost was transferred from general taxpayers to the people of the frontier provinces,^[6] especially the rural peasantry, who, for all the fortifications, would often see their family members killed or abducted, homes destroyed, livestock seized and crops burnt by marauding barbarians.

Critique

Luttwak's work has been praised for its lucid analysis of, and insights into, issues regarding Roman military dispositions, and for stimulating much scholarly debate about these issues.^[7] But the validity of his basic thesis has been strongly disputed by a number of scholars, especially in a powerful critique by B. Isaac, the author of the fundamental study of the Roman army in the East (1992).^[8] The objections fall under two broad headings: (1) The Roman empire did not have the intelligence and planning capacity to sustain a "grand strategy" and in any case was not defensive in ideology or policy.^[9] (2) Defence-in-depth is not, in the main, consistent with the literary and archaeological evidence.^[10]

Strategic planning

Luttwak's thesis of an imperial grand strategy rests on a number of assumptions: (a) that the empire's strategic posture was basically defensive; (b) that Roman expansion and choice of borders were systematic and rational, with the main objective of securing defensible borders; (c) that the Roman government's primary concern was to ensure the security of its provincial subjects. But Isaac demonstrates that these assumptions are probably false and result from inappropriate application of modern concepts of international relations and military strategy to the ancient world.^[11] Isaac suggests that the empire was fundamentally aggressive both in ideology and military posture, up to and including the 4th century. This was demonstrated by the continued military operations and siting of fortifications well beyond the imperial borders.^[12] The empire's expansion was determined mostly by the ambitions of emperors; and that the choice of borders, to the extent that they were planned at all, was more influenced by logistical considerations (e.g. rivers, that were critical conduits for supplies) rather than defensibility. Finally, the imperial government probably was far less concerned with the security of its subjects than would be a modern government.^[13] Isaac shows that the empire did not develop the centralised military planning, or even accurate enough cartography, necessary to support grand strategy. Rome did not develop the equivalent of the centralised general staff of a modern army (and even less strategic studies institutes of the kind frequented by Luttwak). Emperors depended on the theatre military commanders (the provincial governors, later the *magistri militum* and *duces*) for all military intelligence.^[14]

Archaeological evidence

There is also little unequivocal archaeological and literary evidence to support defence-in-depth.^[10] Luttwak's defence-in-depth hypothesis appears to rely on two basic features: (a) deepened fortified border zones: "It became necessary to build forts capable of sustained resistance, and these fortifications had to be built in depth, in order to protect internal lines of communication. Instead of a thin perimeter line on the edges of provincial territory, broad zones of military control had to be created..."^[15] "The thin line of auxiliary 'forts' and legionary 'fortresses' was gradually replaced by a much broader network of small fortified hard-points (in the hands of) scattered groups of static *limitanei*..."^[16] The hypothesis thus predicts the establishment of fortifications well into the interior of border provinces, rather than just a string of bases right on the border line; (b) the use of the *comitatus praesentales* (imperial escort armies) as interception forces to deal with incursions. In this regard, it is to be noted that Luttwak

terminates his analysis in 350, before the establishment of the regional *comitatus*. The interception forces were thus the single large *comitatus* of Constantine, and, later, the 3 *comitatus* known from Ammianus to exist in 350 of Gaul, Illyricum and the East.^[17] But there are serious difficulties with both propositions.

(a) J.C. Mann points out that there is no evidence, either in the *Notitia Dignitatum* or in the archaeological record, that units along the Rhine or Danube were stationed in the border hinterlands.^[18] On the contrary, virtually all forts identified as built or occupied in the 4th century on the Danube lay on, very near or even beyond the river, strikingly similar to the 2nd century distribution.^{[19][20]}

Luttwak seizes on the situation in Palaestina Salutaris (mainly the former Arabia Petraea) province, which was dotted with forts all over, as an example of defence-in-depth.^[21] But here it cannot be proven that the defence system developed only in the 4th century. It may have dated from as early as the 2nd century. In any case, Isaac shows that these "in-depth" forts were probably used for the purposes of internal security against rebels and brigands rather than defence against external threat.^[22] Indeed, such material as can be dated to Diocletian suggests that his reorganisation resulted in a massive reinforcement of linear defence along his newly-built desert highway, the *Strata Diocletiana*.

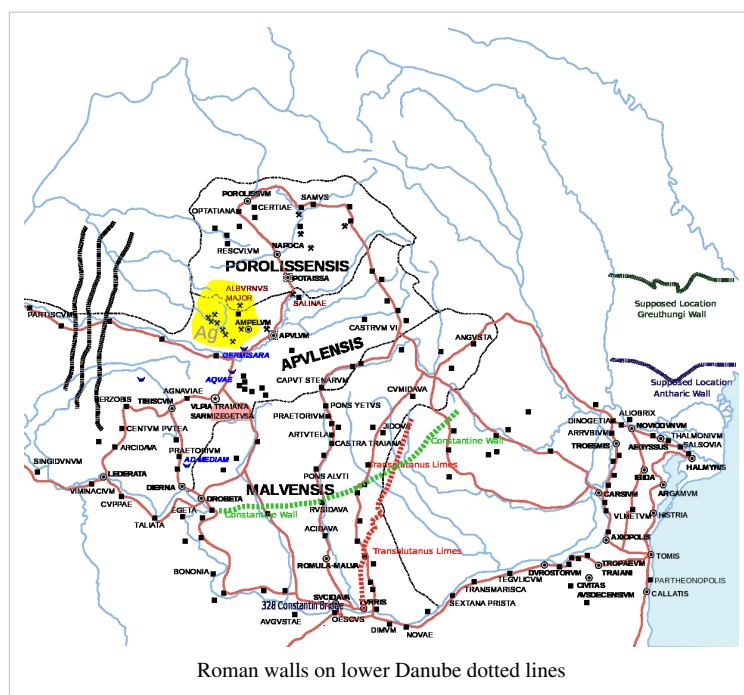
In Britain, the configuration of a large number of 4th century units stationed between Hadrian's Wall and the legionary fortresses at *Deva* (Chester) and *Eboracum* (York), superficially resembles defence-in-depth. But the same configuration existed in the 2nd century, and was due to the short length of the frontier, forcing a "vertical" rather than horizontal deployment, as well as the need to protect the coastlines from seaborne attack. It was not defence-in-depth in the Luttwak sense.^[23]

So strong is the evidence for forward defence under Diocletian that Luttwak himself struggles to avoid that conclusion. At one point, he describes it as "shallow defence-in-depth", a contradiction in terms.^[24] At another, he admits that Diocletian's policy was a "sustained attempt to provide a preclusive (i.e. forward) defence of the imperial territory". Indeed, the unfavourable evidence forces Luttwak to adopt a self-contradicting thesis. While claiming that the basic strategy of the 4th century was defence-in-depth, he admits that there were repeated attempts by the stronger emperors (up to and including Valentinian I) to revert to forward defence.^[4] This obviously casts doubt on whether a defence-in-depth strategy was ever contemplated or implemented in reality.

Literary evidence

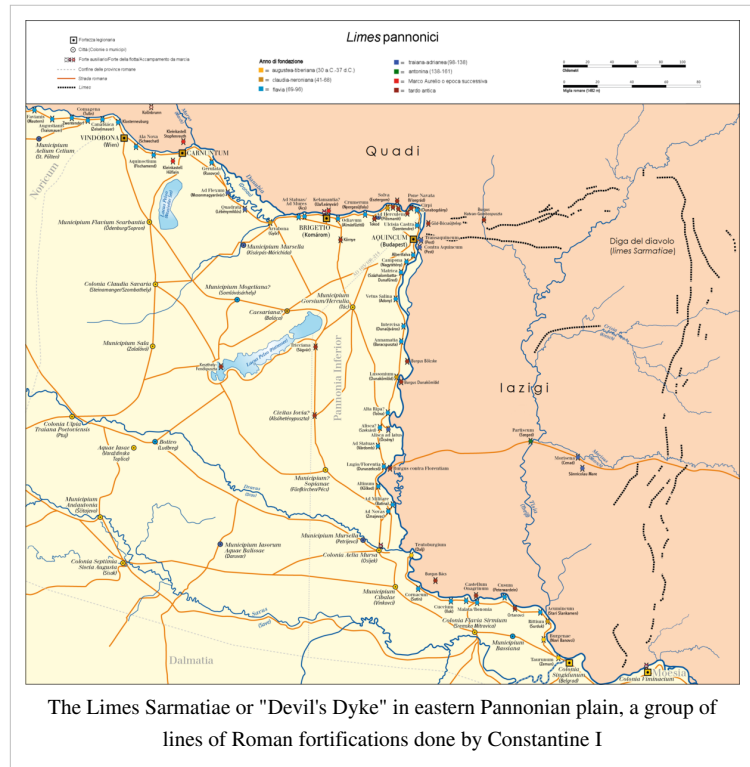
In the absence of any evidence of "defensive depth" in the stationing of border forces, the only "depth" left were the *comitatus praesentales* (imperial escort armies) stationed in the interior of the empire. But Luttwak himself admits that these were too distant from the frontier to be of much value in intercepting barbarian incursions:^[25] their arrival in theatre could take weeks, if not months.^[26] Although they are often described as "mobile field armies", in this context "immobile" would be a more accurate description. Luttwak terminates his analysis in mid-4th century, just before the establishment of the regional *comitatus*.^[23]

But the positioning of the latter, right on the borders or within 60 miles (100 km) of them,^[27] seems strikingly similar to that of the legions in the 2nd c. It could be argued that the deployment of the regional *comitatus* was simply an admission that Zosimus' criticism of Constantine's policy was valid and that effective forward defence required reinforcement of the *limitanei* troops.



A further powerful objection to defence-in-depth is that it is clear from Ammianus that Rome continued major offensive operations across the imperial borders in the 4th century. These were strikingly similar to the pincer movements described by Luttwak as being characteristic of forward defence in the early Principate. For example, Valentinian I's campaign against the Quadi in 375.^[28] The barbarian tribe that were the target of the operation rarely resisted the Romans in pitched battle and more often took refuge in forests and hills. The Romans would then systematically ravage their crops and burn their hamlets until starvation forced the barbarians to surrender. They would then be forced to conclude treaties of alliance with the Romans, often involving the client status described below.^[29] But there was no aspect of this activity that was peculiar to the 4th century.

One "defence strategy" the empire certainly employed was a system of treaties of mutual assistance with tribes living on the imperial frontiers, but this was not unique to the 4th c., but a long-standing practice dating to the days of the late Republic. The Romans would promise to defend the ally from attack by its neighbours. In return, the ally would promise to refrain from raiding imperial territory, and prevent neighbouring tribes from doing the same. In many cases, the loyalty of the ally would need to be further secured by gifts or regular subsidies. In some cases, the Romans would assume a loose suzerainty over the tribe, in effect dictating the choice of new chiefs. This practice was applied on all the frontiers: Germans along the Rhine, Sarmatians along the Danube, Armenian kings and Caucasian and Saracen tribes on the Eastern frontier and Mauri in North Africa. On the desert frontier of Syria, the Romans would appoint a Saracen sheikh (called a *phylarchos* in Greek), according him an official rank in the Roman hierarchy, to "shadow" each *dux limitis* in the sector. In return for food subsidies, the phylarchs would defend the desert frontier against raiders.^[30] The Romans continued to assist the client tribes to defend themselves in the 4th century e.g. the construction by Constantine's army of two massive lines of defensive earthworks (the Devil's Dykes in Hungary and the Brazda lui Novac de Nord in Romania) well beyond the Danube (100–200 miles forward) to protect the client tribes of the Banat and the Wallachian plain against Gothic incursions.^[31] This system of a series of buffer zones of "client tribes" clearly represents an efficient and economical form of "forward defence". It contradicts the proposition that the border provinces of the empire were themselves envisaged as buffer zones.



The Limes Sarmatiae or "Devil's Dyke" in eastern Pannonian plain, a group of lines of Roman fortifications done by Constantine I

The late army's "defence" posture thus contains many elements that are similar to the Principate army's, raising the question of whether defence-in-depth was ever in reality contemplated as a strategy. But the debate about defence-in-depth is still very much alive.

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State of the debate

Adrian Goldsworthy argues that both sides of the debate, which continues vigorously, have made valid points. Some degree of central planning is implied by the disposition, frequently altered, of legions and auxiliary forces in the various provinces.^[32] In addition, although the empire's ideology may have been offensive in nature, border fortification such as Hadrian's Wall was clearly defensive. It is a fact that the empire ceased to expand its territory after the rule of emperor Trajan (98-117). Thereafter, the borders remained largely static, with indeed a few losses of territory: the immediate evacuation of Trajan's conquests in Mesopotamia by his successor Hadrian (r. 117-38) and of the Agri Decumates in Germany and of Dacia in the 3rd century. Thus, even if the empire's ideology and propaganda was expansionist (the slogan *imperium sine fine* - "empire without limits" - was common), its actual policy was generally non-expansionist.

As regards defence-in-depth itself, there appears to be (as yet) insufficient clearcut evidence to support it. Mann's critique was written in 1979, so does not take account of the substantial corpus of archaeological data accumulated

since. Virtually all identified forts built in the 4th century lay on, very near or even beyond the border.^[20] Some evidence of fortifications in the hinterland has come to light that could be consistent with defence-in-depth. But such features cannot be unequivocally linked with military units. It is also difficult to construct a historical theory on archaeological evidence alone. The interpretation of archaeological evidence is notoriously difficult.

Mann accepts that Luttwak's "forward defence" concept for the empire's earlier border policy is a reasonably accurate description of the reality on the ground.^[33] The 4th century army's "defence" posture shares many features with the earlier policy. This lends weight to the thesis that 4th century emperors still envisaged forward defence as the basic strategy of the empire. The enhanced fortification of forts and other buildings, as well as cities in the border provinces (and deep in the interior of the empire including Rome itself) may therefore be interpreted as simply an admission that forward defence was not working as well as in the earlier centuries. Either barbarian pressure was much greater and/or the Roman border forces were less effective than before in containing it.

However, too many uncertainties remain to write off defence-in-depth. In particular, the precise location of comitatus armies, both escort and regional, is unknown, but a critical factor in assessing defence-in-depth.

Citations

- [1] Luttwak (1976) Fig.3.3
- [2] Luttwak (1976) 136
- [3] Luttwak (1976) 131-2
- [4] Luttwak (1976) 132
- [5] Luttwak (1976) Fig.3.2
- [6] Luttwak (1976) 137
- [7] Isaac (1992) 377
- [8] Mann (1979); F. Miller (1982); Isaac (1992) 372-418
- [9] Isaac (1992) 416
- [10] Mann (1979) 180-1
- [11] Isaac (1992) 373, 377
- [12] Isaac (1992) 387-93
- [13] Isaac (1992) 393-4
- [14] Isaac (1992) 378, 383, 401-6
- [15] Luttwak (1976) 159
- [16] Luttwak (1976) 171
- [17] Goldsworthy (2000) 172
- [18] Mann (1979) 180
- [19] Scarre (1995) Map on p87
- [20] Elton (1996) 157 and 159 (Fig 13)
- [21] Luttwak (1976) 160
- [22] Isaac (1992) 198ff
- [23] Mann (1979) 181
- [24] Luttwak (1976) 155
- [25] Luttwak (1976) 190
- [26] Elton (1996) 215
- [27] Elton (1996) 209
- [28] Ammianus XVI.11
- [29] Elton (1996) 221-7
- [30] Jones (1964) 611
- [31] Scarre (1995) 87
- [32] Goldsworthy (2005) 154
- [33] Mann (1979) 179

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Roman infantry tactics

Roman infantry tactics refers to the theoretical and historical deployment, formation and maneuvers of the Roman infantry from the start of the Roman Republic to the fall of the Western Roman Empire. The article first presents a short overview of Roman training. Roman performance against different types of enemies is then analyzed. Finally a summation of what made the Roman tactics and strategy militarily effective through their long history is given below, as is a discussion of how and why this effectiveness eventually disappeared.

The focus below is primarily on Roman tactics - the "how" of their approach to battle, and how it stacked up against a variety of opponents over time. It does not attempt detailed coverage of things like army structure or equipment. Various battles are summarized to illustrate Roman methods with links to detailed articles on individual encounters. For in depth background on the historical structure of the infantry relevant to this article, see [Structure of the Roman military](#). For a history of Rome's military campaigns see [Campaign history of the Roman military](#). For detail on equipment, daily life and specific Legions see [Roman Legion](#) and [Roman military personal equipment](#).

Evolution of Roman infantry tactics

Roman military tactics and strategy evolved from that typical of a small tribal host seeking local hegemony, to massive operations encompassing a world empire. This advance was affected by changing trends in Roman political, social and economic life, and that of the larger Mediterranean world, but it was also undergirded by a distinctive "Roman way" of war. This approach included a tendency towards standardization and systematization, practical borrowing, copying and adapting from outsiders, flexibility in tactics and methods, a strong sense of discipline, a ruthless persistence that sought comprehensive victory, and a cohesion brought about by the ideal of Roman citizenship under arms - embodied in the Legion.^[1] These elements waxed and waned over time, but they form a distinct basis underlying Rome's rise.

Some key phases of this evolution throughout Rome's military history would include:^[2]

- Military forces based primarily on heavy citizen infantry with tribal beginnings and early use of phalanx type elements (see [Military establishment of the Roman kingdom](#))
 - Growing sophistication as Roman hegemony expanded outside Italy into North Africa, Greece and the Middle East (see [Military establishment of the Roman Republic](#))
 - Continued refinement, standardization and streamlining in the period associated with Gaius Marius including a broader based incorporation of more citizenry into the army, and more professionalism and permanence in army service.
 - Continued expansion, flexibility and sophistication from the end of the Republic into the time of the Caesars (see [Military establishment of the Roman empire](#))
 - Growing barbarization, turmoil and weakening of the heavy infantry units in favor of cavalry and lighter troops (See [Foederati](#))
 - Demise of the Western Empire and fragmentation into smaller, weaker local forces. This included the reversal of status of cavalry and infantry in the Eastern Empire. Cataphract forces formed an elite, with infantry being reduced to auxiliaries
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Equipment and training

See detailed articles for more information on equipment, individual Legions and structure

Training

Over time the military system changed its equipment and roles, but throughout the course of Roman history, it always remained a disciplined and professional war machine. Soldiers carried out training common to every army, from initial muster, arms and weapons drill, formation marching and tactical exercises. The typical training regime consisted of gymnastics and swimming, to build physical strength and fitness, fighting with *armatura* (which were wooden weapons), to learn and master combat techniques and long route marches with full battle gear and equipment to build stamina, endurance and to accustom them to the hardships of campaigns.^[3]

Combat training exercises consisted of thrusting with a wooden *gladius* into a *quintain* (wooden dummy) while wearing full armor, and sparring with one another. Legionaries were trained to thrust with their *gladii* because they could defend themselves behind their large shields (*scuta*) while stabbing the enemy. The Romans were well aware that a wound of only 3 cm or 4 cm could cause death, so they emphasized quick, stabbing techniques to vital areas or between gaps in armor. Contemporary artistic depictions of Roman soldiers fighting, including Trajan's Column in Rome, depict them as standing with their left foot and shield forward with their right foot back and turned outwards ninety degrees. Some believe this indicates a boxing-like style of fighting where the shield in the left is used to jab and harass the enemy while the sword in the right is used to deliver the final blow.

In fact the shield wall was the key. The legionary would put his studded left boot behind the base of the shield, his right foot behind, braced his body, and he was supported by two further ranks. The braver the enemy, and the more they were pushed forward, the more those in front were pinned helpless and defenceless against the Roman shield wall, and easily stabbed to death with the short sword.

In all likelihood however it is probably designed to allow for attacking with a passing motion similar to later medieval European Martial Arts which use a similar stance for armoured combat. The benefit of attacking on what would later be dubbed the half pass is that the unit could remain in formation with each motion, as breaking formation was a great risk this along with their stance suggests such footwork is more likely than the boxing style suggested by some.

Other training exercises taught the legionary to obey commands and assume battle formations.^[4] At the end of training the legionary had to swear an oath of loyalty to the SPQR (Senatus Populusque Romanus, or the Senate and the Roman People) or later to the emperor. The soldier was then given a diploma and sent off to fight for his living and the glory and honor of Rome.^[4]

Equipment

Individual weapons, personal equipment and haulage

A legionary typically carried around 27 kilograms (60 pounds) of armour, weapons, and equipment. This load consisted of armour, sword, shield, two *pila* (one heavy, one light) and 15 days' food rations. There were also tools for digging and constructing a *castra*, the legions' fortified base camp. One writer recreates the following as to Caesar's army in Gaul:^[5] Each soldier arranged his heavy pack on a T or Y-shaped rod, borne on his left shoulder. Shields were protected on the march with a hide cover. Each legionnaire carried about 5 days worth of wheat, pulses or chickpeas, a flask of oil and a mess kit with a dish, cup, and utensil. Personal items might include a dyed horsehair crest for the helmet, a semi-water resistant oiled woolen cloak, socks and breeches for cold weather and a blanket. Entrenchment equipment included a shallow wicker basket for moving earth, a spade and/or pick-axe like *dolabra*, or turf cutter, and two wooden staves to construct the next camp palisade. All these were arranged in the marching pack toted by each infantryman.

Fighters travelled in groups of 8, and each octet was sometimes assigned a mule. The mule carried a variety of equipment and supplies, including a mill for grinding grain, a small clay oven for baking bread, cooking pots, spare weapons, waterskins, and tents. A Roman century had a complement of 10 mules, each attended by two non-combatants who handled foraging and water supply. A century might be supported by wagons in the rear, each drawn by 6 mules, and carrying tools, nails, water barrels, extra food and the tent and possessions of the centurion-commanding officer of the unit.

Artillery package

The legion also carried an artillery detachment with 30 pieces of artillery. This firepower package consisted of 10 stone throwing catapults and 20 bolt-shooting ballista, together with supporting wagons to carry ammunition and spare parts. Bolts were used for targeted fire on human opponents, while stones were used against fortifications or as an area saturation weapon. The catapults were powered by rope and sinew, tightened by ratchet and released by the stored energy. Caesar was to mount these in boats on some operations in Britain, striking fear in the heart of the native opponents according to his writings. Catapults like the *scorpion* were mobile and could be deployed in defence of camps, field entrenchments and even in the open field.^[6]

Organization, leadership and logistics

Command, control and structure

Once the soldier had finished his training he was typically assigned to a legion, the basic mass fighting force. The legion was split into ten sub-units called cohorts, roughly comparable to a modern infantry battalion. The cohorts were further sub-divided into three maniples, which in turn were split into two centuries of about 60-100 men each. The first cohort in a legion was usually the strongest, with the fullest personnel complement and with the most skilled, experienced men. Several legions grouped together made up a distinctive field force or "army".^[4] Fighting strength could vary but generally a legion was made up of 4,800 soldiers, 60 centurions, 300 artillerymen, and 100 engineers and artificers, and around 1,600 non-combatants. Each legion was supported by a unit of 300 cavalry, the equites.

Supreme command of either legion or army was by consul or proconsul or a praetor, or in cases of emergency in the Republican era, a dictator. A praetor or a propraeor could only command a single legion and not a consular army, which normally consisted of two legions plus the allies. In the early Republican period it was customary for an army to have dual commands, with different consuls holding the office on alternate days. In later centuries this was phased out in favor of one overall army commander. The legati were officers of senatorial rank who assisted the supreme commander. Tribunes were young men of aristocratic rank who often supervised administrative tasks like camp construction. Centurions (roughly equivalent in rank to today's non-commissioned or junior officers, but functioning as modern captains in field operations) commanded cohorts, maniples and centuries. Specialist groups like engineers and artificers were also used.

Military structure and ranks

An in-depth analysis of ranks, types, and historical units including their evolution over time is beyond the scope of this article. See Structural history of the Roman military and Roman Legion for a detailed breakdown. Below is a very basic summary of the legion's structure and ranks.^[7]

Force structure

- Contubernium: "tent unit" of 8 men
- Centuria: 80 men commanded by a centurion
- Cohort: 6 centuries or a total of 480 fighting men. Added to these were officers. The first cohort was double strength in terms of manpower, and generally held the best fighting men
- Legion: made up of 10 cohorts
- Field army: a grouping of several legions
- Equites: Each legion was supported by 300 cavalry (equites), sub-divided into ten *turmae*
- Auxilia and velites: allied contingents, often providing light infantry and specialist fighting services, like archers, slingers or javelin men. They were usually formed into the light infantry or velites. Auxilia in the Republican period also formed allied heavy legions to complement Roman citizen formations.
- Non-combatant support: generally the men who tended the mules, forage, watering and sundries of the baggage train

Rank summary

- Consul - elected official with military and/or civil duties, sometimes both
- Praetor - appointed military commander of a legion or grouping of legions
- Legatus legionis - the legate overall legion commander, usually filled by a senator
- Tribune - young officers, second in command of the legion. Other lesser tribunes served as junior officers
- Prefect - third in command of the legion. There were various types. The Prefectus equitarius commanded a unit of cavalry
- Primus pilus - commanding centurion for the first cohort- the senior centurion of the entire legion
- Centurion - basic commander of the century. Prestige varied based on the cohort they supervised
- Decurio - commander of the cavalry unit or *turma*
- Decanus - equivalent to a sergeant, commanded 8-man tent party
- Aquilifer - standard bearer of each legion- a position of much prestige
- Signifier - one for each century, handled financial matters and decorations
- Optio - second on command for the centurion
- Cornicen - horn blower or signaler
- Imaginifer - carried standard bearing the emperor's image
- Munifex - basic legion fighter- the lowest of the trained rank and file
- Tirones- new recruit to the legions, a novice

Logistics

Roman logistics were among some of the best in the ancient world over the centuries- from the deployment of purchasing agents to systematically buy provisions during a campaign, to the construction of roads and supply caches, to the rental of shipping if the troops had to move by water. Heavy equipment and material (tents, artillery, extra weapons and equipment, millstones etc.) were moved by pack animal and cart, while troops carried weighty individual packs with them, including staves and shovels for constructing the fortified camps. Typical of all armies, local opportunities were also exploited by troops on the spot, and the fields of peasant farmers unlucky enough to be near the zone of conflict might be stripped to meet army needs. As with most armed forces, an assortment of traders, hucksters, prostitutes and other miscellaneous service providers trailed in the wake of the Roman fighting men.^[8]

The Roman infantry in battle

Initial preparations and movement for battle

The approach march. Once the legion was deployed on an operation, the marching began. The approach to the battlefield was made in several columns, enhancing maneuverability. Typically a strong vanguard preceded the main body, and included scouts, cavalry and light troops. A tribune or other officer often accompanied the vanguard to survey the terrain for possible camp locations. Flank and reconnaissance elements were also deployed to provide the usual covering security. Behind the vanguard came the main body of heavy infantry. Each legion marched as a distinct formation and was accompanied by its own baggage train. The last legion usually provided the rear force, although several recently raised units might occupy this final echelon.

Construction of fortified camps. Legions on a campaign typically established a strong field camp, complete with palisade and a deep ditch, providing a basis for supply storage, troop marshaling and defense. Camps were recreated each time the army moved, and were constructed with a view to both military necessity and religious symbolism. There were always four gateways, connected by two main criss-crossing streets, with the intersection at a concentration of command tents in the center. Space was also made for an altar and religious gathering area. Everything was standardized, from the positioning of baggage, equipment and specific army units, to the duties of officers who were to set up sentries, pickets and orders for the next day's march. Construction could take between 2 to 5 hours with part of the army laboring, while the rest stood guard, depending on the tactical situation. The shape of the camp was generally rectangular, but could vary based on the terrain or tactical situation. A distance of about 60 meters was left clear between the entrenchments and the first row of troop tents. This gap provided space for marshaling the legionnaires for battle and kept the troop area out of enemy missile range.^[9] No other ancient army persisted over such a long period in systematic camp construction like the Romans, even if the army rested for only a single day.^[10]

Breaking camp and marching. After a regimented breakfast at the allocated time, trumpets were sounded and the camp's tents and huts were dismantled and preparations made for departure. The trumpet then sounded again with the signal for "stand by to march". Mules and wagons of the baggage train would be loaded and units formed up. The camp would then be burned to the ground to prevent its later occupation and use by the enemy. The trumpets would then be sounded for a final time and then the troops asked three times whether they were ready, to which they were expected to shout together "Ready!", before marching off.^[11]

Intelligence. Good Roman commanders did not hesitate to exploit useful intelligence, particularly where a siege situation or impending clash in the field was developing. Information was gathered from spies, collaborators, diplomats and envoys, and allies. Intercepted messages during the Second Punic War for example were an intelligence coup for the Romans, and enabled them to dispatch two armies to find and destroy Hasdrubal's Carthaginian force, preventing his reinforcement of Hannibal. Commanders also kept an eye on the situation in Rome since political enemies and rivals could use an unsuccessful campaign to inflict painful career and personal damage. During this initial phase the usual field reconnaissance was also conducted - patrols might be sent out, raids mounted to probe for weaknesses, prisoners snatched, and local inhabitants intimidated.^[8]

Morale. If the field of potential battle were near, movement became more careful and more tentative. Several days might be spent in a location studying the terrain and opposition, while the troops were prepared mentally and physically for battle. Pep talks, sacrifices to the gods and the announcements of good omens might be carried out. A number of practical demonstrations might also be undertaken to test enemy reaction as well as to build troop morale. Part of the army might be led out of the camp and drawn up in battle array towards the enemy. If the enemy refused to come out and at least make a demonstration, the commander could claim a morale advantage for his men, contrasting the timidity of the opposition with the resolution of his fighting forces.^[8]

Historian Adrian Goldsworthy notes that such tentative pre-battle maneuvering was typical of ancient armies as each side sought to gain maximum advantage before the encounter.^[12] During this period, some ancient writers paint a

picture of meetings between opposing commanders for negotiation or general discussion, as with the famous pre-clash conversation between Hannibal and Scipio at Zama. But whatever the truth of these discussions, or the flowery speeches allegedly made, the only encounter that ultimately mattered was battle.

Deployment for combat

Pre-battle maneuver gave the competing commanders a feel for the impending clash, but final outcomes could be unpredictable, even after the start of hostilities. Skirmishing could get out of hand, launching both main forces towards one another. Political considerations, exhaustion of supplies, or even rivalry between commanders for glory could also spark a forward launch, as at the Battle of the Trebia River.^[8]

Layout of the triple line

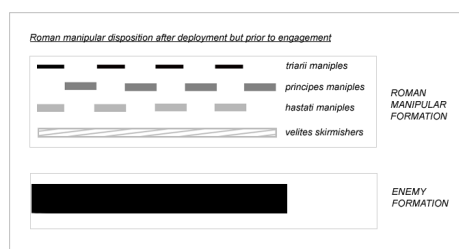
Once the machinery was in motion however, the Roman infantry typically was deployed, as the main body, facing the enemy. During deployment in the Republican era, the maniples were commonly arranged in *triplex acies* (triple battle order): that is, in three ranks, with the hastati in the first rank (that nearest the enemy), the principes in the second rank, and the veteran triarii in the third and final rank as barrier troops, or sometimes even further back as a strategic reserve. When in danger of imminent defeat, the first and second lines, the Hastati and Principes, ordinarily fell back on the Triarii to reform the line to allow for either a counter-attack or an orderly withdrawal. Because falling back on the Triarii was an act of desperation, to mention "falling on the Triarii" ("*ad triarios rediisse*") became a common Roman phrase indicating one to be in a desperate situation.^[13]

Within this triplex acies system, contemporary Roman writers talk of the maniples adopting a checkered formation called *quincunx* when deployed for battle but not yet engaged. In the first line, the hastati left gaps equal in size to their cross-sectional area between each maniple. The second line consisting of principes followed in a similar manner, lining up behind the gaps left by the first line. This was also done by the third line, standing behind the gaps in the second line. The velites were deployed in front of this line in a continuous, loose-formation line.^[14]

The Roman maneuver was a complex one, filled with the dust of thousands of soldiers wheeling into place, and the shouting of officers moving to and fro as they attempted to maintain order. Several thousand men had to be positioned from column into line, with each unit taking its designated place, along with light troops and cavalry. The fortified camps were laid out and organized to facilitate deployment. It might take some time for the final array of the host, but when accomplished the army's grouping of legions represented a formidable fighting force, typically arranged in three lines with a frontage as long as one mile (1.6 km).^[15]

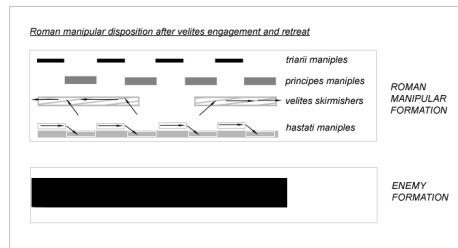
A general three line deployment was to remain over the centuries, although the Marian reforms phased out most divisions based on age and class, standardized weapons and reorganized the legions into bigger maneuver units like cohorts. The overall size of the legion, and length of the soldier's service also increased on a more permanent basis.^[16]

Maneuvering



As the army approached its enemy, the velites in front would throw their javelins at the enemy and then retreat through the gaps in the lines. This was an important innovation since in other armies of the period skirmishers would have to either retreat through their own armies ranks, causing confusion, or else flee around either flank of their own

army. After the velites had retreated through the hastati, the 'posterior' century would march to the left and then forward so that they presented a solid line, creating a solid line of soldiers. The same procedure would be employed as they passed through the second and third ranks or turned to the side to channel down the gap between the first and second rows on route to help guard the legion's flanks.^[17]



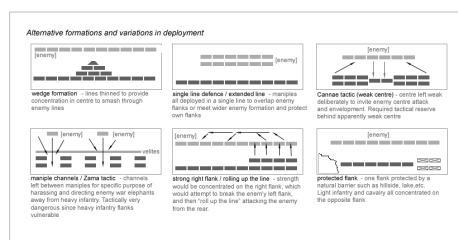
At this point, the legion then presented a solid line to the enemy and the legion was in the correct formation for engagement. When the enemy closed, the hastati would charge. If they were losing the fight, the 'posterior' century returned to its position creating gaps again. Then the maniples would fall back through the gaps in the principes, who followed the same procedure to form a battle line and charge. If the principes could not break the enemy, they would retreat behind the triarii and the whole army would leave the battlefield in good order. According to some writers, the *triarii* formed a continuous line when they deployed, and their forward movement allowed scattered or discomfited units to rest and reform, to later rejoin the struggle.^[18]

The manipular system allowed engaging every kind of enemy even in rough terrain, because the legion had both flexibility and toughness according to the deployment of its lines. Lack of a strong cavalry corps however, was a major flaw of the Roman forces.

In the later imperial army, the general deployment was very similar, with the cohorts deploying in quincunx pattern. In a reflection of the earlier placement of the veteran triarii in the rear, the less experienced cohorts - usually the 2nd, 3rd, 4th, 6th, and 8th - were in the front; the more experienced cohorts - 1st, 5th, 7th, 9th, and 10th - were placed behind.^[19]

Formations

The above is only standard procedure and was often modified; for example, at Zama, Scipio deployed his entire legion in a single line to envelop Hannibal's army just as Hannibal had done at Cannae. A brief summary of alternative formations known to have been used is shown below:



Combat

Hand-to-hand engagement after release of missile weapons. Once the deployment and initial skirmishing described above took place, the main body of heavy infantry closed the gap and attacked on the double. The front ranks usually cast their *pila*, and the following ranks hurled theirs over the heads of the front-line fighters. If a cast pilum did not cause direct death or injury, they were designed to bend on contact, rendering the *pila* unusable by the enemy. After the *pila* were cast, the soldiers then drew their swords and engaged the enemy. Emphasis was on using the shield to provide maximum body coverage, while attacking that exposed by the enemy. In the combat that ensued, Roman discipline, heavy shield, armor and training were to give them important advantages.

The acute shock of combat. Some scholars of the Roman infantry maintain that the intense trauma and stress of hand to hand combat meant that the contenders did not simply hack at one another continuously until one dropped. Instead there were short periods of intense, vicious fighting. If indecisive, the contenders might fall back a short distance to recuperate, and then surge forward to renew the struggle. Others behind them would be stepping up into the fray meanwhile, engaging new foes or covering their colleagues. The individual warrior could thus count on temporary relief, rather than endless fighting until death or crippling injury. As the battle progressed, the massive physical and mental stress intensified. The stamina and willpower demanded to make yet one more charge, to make yet one more surge grew even greater.^[12] Eventually one side began to break down, and it is then that the greatest slaughter began.

Use of war machines and covering fire. Many Roman battles, especially during the late empire, were fought with the preparatory fire from Ballistas and Onagers. These war machines, a form of ancient artillery, fired arrows and large stones towards the enemy (although many historians question the battlefield effectiveness of such weapons). Following this barrage, the Roman infantry advanced, in four lines, until they came within 30 meters of the enemy, then they halted, hurled their pila and charged. If the first line was repelled by the enemy, another line would rapidly resume the attack. Often this rapid sequence of deadly attacks proved the key of victory. Another common tactic was to taunt the enemy with feigned charges and rapid arrow fire by the *auxiliares equites* (auxiliary cavalry), forcing the enemy into pursuing them, and then leading the enemy into an ambush where they would be counter attacked by Roman heavy infantry and cavalry.

3-line system advantages

Flexibility

Some ancient sources such as Polybius seem to imply that the legions could fight with gaps in their lines. Yet, most sources seem to admit that more usually a line would form into a solid front. Various approaches have been taken to reconcile these possibilities with the ancient writings.^[20] The advantages of gaps are obvious when a formation is on the move- it can more easily flow around obstacles and maneuver and control are enhanced and, as the Romans did in the pre-Marius republic, place baggage between the lines meaning that the cargo cannot be easily captured and that the army can quickly get ready for a battle by using it as cover. After the approach marching was complete, it would be extremely difficult to deploy an unbroken army of men for combat across any but the flattest ground without some sort of intervals. Many ancient armies used gaps of some sort, even the Carthaginians, who typically withdrew their initial skirmishing troops between the spaces before the main event. Even more loosely organized enemies like the Germanic hosts typically charged in distinct groups with small gaps between them, rather than marching up in a neat line.^[21]

Fighting with gaps is thus feasible as writers like Polybius assert. According to those who support that the *quincunx* formation view, what made the Roman approach stand out is that their intervals were generally larger and more systematically organized than those of other ancient armies. Each gap was covered by maniples or cohorts from lines farther back. A penetration of any significance could not just slip in unmolested. It would not only be mauled as it fought past the gauntlet of the first line, but would also clash with aggressive units moving up to plug the space.^[22] From a larger standpoint, as the battle waxed and waned, fresh units might be deployed through the intervals to relieve the men of the first line, allowing continual pressure to be brought forward.

Mixing of a continuous front with interval fighting

One scenario for not using gaps is deployment in a limited space, such as the top of a hill or ravine, where extensive spreading out would not be feasible. Another is a particular attack formation, such as the wedge discussed above, or an encirclement as at the battle of Ilipa. Yet another is a closing phase maneuver, when a solid line is constructed to make a last, final push as in the battle of Zama. During the maelstrom of battle it is also possible that as the units merged into line, the general checkerboard spacing became more compressed or even disappeared, and the fighting

would see a more or less solid line engaged with the enemy. Thus gaps at the beginning of the struggle might tend to vanish in the closing phases.^[23]

Some historians view the intervals as primarily useful in maneuver. Before the legionaries closed with the enemy each echelon would form a solid line to engage. If things went badly for the first line, it would retreat through the gaps and the second echelon moved up- again forming a continuous front. Should they be discomfited, there still remained the veterans of the *triarii* who let the survivors retreat through the preset gaps. The veterans then formed a continuous front to engage the enemy or provided cover for the retreat of the army as a whole. The same procedure was followed when the *triarii* was phased out - intervals for maneuver, reforming and recovery- solid line to engage.^[24] Some writers maintain that in Caesar's armies the use of the *quincunx* and its gaps seems to have declined, and his legions generally deployed in three unbroken lines as shown above, with four cohorts in front, and three apiece in the echeloned order. Relief was provided by the second and third lines 'filtering' forward to relieve their comrades in small groups, while the exhausted and wounded eased back from the front.^[25] The Romans still remained flexible however, using gaps and deploying four or sometimes two lines based on the tactical situation.^[26]

Line spacing and combat stamina

Another unique feature of the Roman infantry was the depth of its spacing. Most ancient armies deployed in shallower formations, particularly phalanx-type forces. Phalanxes might deepen their ranks heavily to add both stamina and shock power, but their general approach still favored one massive line, as opposed to the deep three-layer Roman arrangement. The advantage of the Roman system is that it allowed the continual funneling or metering of combat power forward over a longer period—massive, steadily renewed pressure to the front—until the enemy broke. Deployment of the second and third lines required careful consideration by the Roman commander. Deployed too early, and they might get entangled in the frontal fighting and become exhausted. Deployed too late, and they might be swept away in a rout if the first line began to break. Tight control had to be maintained, hence the 3rd line *triarii* were sometimes made to squat or kneel, effectively discouraging premature movement to the front. The Roman commander was thus generally mobile, constantly moving from spot to spot, and often riding back in person to fetch reserves, if there was no time for standard messenger service. The large number of officers in the typical Roman army, and the flexible breakdown into sub-units like cohorts or maniples greatly aided coordination of such moves.^[27]

Whatever the actual formation taken however, the ominous funneling or surge of combat power up to the front remained constant:

"When the first line as a whole had done its best and become weakened and exhausted by losses, it gave way to the relief of fresh men from the second line who, passing through it gradually, pressed forward one by one, or in single file, and worked their way into the fight in the same way. Meanwhile the tired men of the original first line, when sufficiently rested, reformed and re-entered the fight. This continued until all men of the first and second lines had been engaged. This does not presuppose an actual withdrawal of the first line, but rather a merging, a blending or a coalescing of both lines. Thus the enemy was given no rest and was continually opposed by fresh troops until, exhausted and demoralized, he yielded to repeated attacks."^[28]

Post-deployment commands

Whatever the deployment, the Roman army was marked both by flexibility and strong discipline and cohesion. Different formations were assumed according to different tactical situations.

- *Repellere equites* ("repel horsemen/knights") was the formation used to resist cavalry. The legionaries would assume a square formation, holding their *pila* as spears in the space between their shields and strung together shoulder to shoulder.
- At the command *iacere pila*, the legionaries hurled their *pila* at the enemy.
- At the command *cuneum formate*, the infantry formed a wedge to charge and break enemy lines. This formation was used as a shock tactic.
- At the command *contendite vestra sponte*, the legionaries assumed an aggressive stance and attacked every opponent they faced.
- At the command *orbem formate*, the legionaries assumed a circle-like formation with the archers placed in the midst of and behind the legionaries providing missile fire support. This tactic was used mainly when a small number of legionaries had to hold a position and were surrounded by enemies.
- At the command *ciringite frontem*, the legionaries held their position.
- At the command *frontem allargate*, a scattered formation was adopted.
- At the command *testudinem formate*, the legionaries assumed the *testudo* (tortoise) formation. This was slow moving but almost impenetrable to enemy fire, and thus very effective during sieges and/or when facing off against enemy archers. However in hand to hand fighting then the *testudo* was a weak formation and therefore it was only adopted when the enemy were far enough away so as the legionaries could get into another formation before being attacked.
- At the command *Agmen formate*, the legionaries assumed a square formation, which was also the typical shape of a century in battle.



Roman re-enactors demonstrate a variant of the Roman *testudo* formation

Siegecraft and fortifications

Besieging cities.

Oppidum expugnare was the Roman term for besieging cities. It was divided into three phases:

1. In the first phase, engineers (the *cohors fabrorum*) built a fortified camp near the city with walls of circumvallation and at the command 'turre extruere' built watch towers to prevent the enemy from bringing in reinforcements. Siege towers were built, trenches were dug and traps set all around the city. Also second, exterior line of walls (*contravallation*) was built around the city facing the enemy, as Caesar did at the Battle of Alesia. Sometimes the Romans would mine the enemy's walls.
2. The second phase began with onager and ballista fire to cover the approach of the siege towers, which were full of legionaries ready to assault the wall's defenders. Meanwhile, other cohorts approached the city's wall in testudo formation, bringing up battering rams and ladders to breach the gates and scale the walls.
3. The third phase included opening of the city's main gate by the cohorts which had managed to break through or scale the walls, provided the rams had not knocked the gate open. Once the main gate was opened or the walls breached, the cavalry and other cohorts entered the city to finish off the remaining defenders.



Modern reconstruction of a *Ballista*.

Field fortifications. While strong cities/forts and elaborate sieges to capture them were common throughout the ancient world, the Romans were unique among ancient armies in their extensive use of field fortifications. In campaign after campaign, enormous effort was expended to dig- a job done by the ordinary legionnaire. His field pack included a shovel, a *dolabra* or pickaxe, and a wicker basket for hauling dirt. Some soldiers also carried a type of turf cutter. With these they dug trenches, built walls and palisades and constructed assault roads. The operations of Julius Caesar at Alesia are well known. The Gallic city was surrounded by massive double walls penning in defenders, and keeping out relieving attackers. A network of camps and forts were included in these works. The inner trench alone was 20 feet (**unknown operator: u'strong'** m) deep, and Caesar diverted a river to fill it with water. The ground was also sown with caltrops of iron barbs at various places to discourage assault. Surprisingly for such an infantry centered battle, Caesar relied heavily on cavalry forces to counter Gallic sorties. Ironically, many of these were from Germanic tribes who had come to terms earlier.^[29]

The power of Roman field camps has been noted earlier, but in other actions, the Romans sometimes used trenches to secure their flanks against envelopment when they were outnumbered, as Caesar did during operations in Belgic Gaul. In the Brittany region of France, moles and breakwaters were constructed at enormous effort to assault the estuarine strongholds of the Gauls. Internal Roman fighting between Caesar and Pompey also saw the frequent employment of trenches, counter-trenches, dug-in strong points, and other works as the contenders maneuvered against each other in field combat.^[29] In the latter stages of the empire, the extensive use of such field fortifications declined as the heavy infantry itself was phased down. Nevertheless they are an integral part of the relentless Roman rise to dominance over large parts of the ancient world.^[30]

Resource tactics

As with any military organization, training soldiers/armies require a number of things and could prove to be quite costly in the long run.

The Romans understood this concept very well and realized that training soldiers could include paying for his rations [food], his salary, his armor, his armaments [weapons], and a soldier's honorarium [which was paid to those who received honorable discharges]. With all this in perspective, the Romans realized each individual soldier was a far too valuable resource to waste. The Romans knew the costs they were incurring for each soldier had to be quite similar on their enemy's side. So the Romans developed a tactic that could cause a significant setback or even defeat to their enemy; while only creating a limited risk to their own soldiers. This tactic was known as "Resource Tactics." Standing armies run on their stomachs and their equipment, and both require regular supplies. The idea of "Resource Tactics" could ultimately cut off their opponents from resources in one of three ways:

1. The first way the Romans conducted this tactic was to attack the resource location themselves. Once they conquered a territory they would secure as much resources as they could handle. This allowed the Romans to restock their own supply and prevent the available resources from falling into their opponents hands.^[31]
2. The second way the Romans conducted this tactic was to actually intercept the supplies while in transit. The Romans would identify main supply routes of their enemies and create a stopping point . *Once the enemy was stopped, the Romans would ransack the supply, which would drastically reduce the amount of supplies that would reach the enemy.*^[31]
3. The final approach, and quite possibly the most famous way the Romans conducted this tactic was a "siege" [siege - a military operation in which troops surround a place and cut off all outside access to force surrender]. While conducting the siege, the Romans would typically build a wall around the existing city to help control the enemy. This wall would be built out of reach of the archers and would prevent the enemy from escaping. Once the Romans completed the wall, they would use catapults, ballistas, onagers, and trebuchets to hurl rocks, spears, and other objects from safe distances. The ongoing siege would eventually cause the city/fort to run out of resources, thus causing the opponents to die off or surrender; giving the Romans an easy victory.^[31]

The basic principle behind this tactic was to disrupt their enemies resources while increase their own personal resources. Without a regular supply of food, water, and other supplies, armies will begin to starve or dehydrate, which lead to low morale or killing of fellow soldiers. This in turn would cause the opposing Army to fail its overarching goal and fall apart.^[31]

Infantry effectiveness

Roman infantry versus Hellenic phalanx

Strengths of the phalanx. Prior to the rise of Rome, the Hellenic phalanx was the premiere infantry force in the Western World. It had proven itself on the battlefields of southern Europe- from Sparta to Macedonia, and had met and overcome several strong non-European armies beyond - from Persia to India. Packed into a dense armored mass, and equipped with massive pikes 12 to 21 feet (**unknown operator: u'strong' m**) in length, the phalanx was a formidable force. While defensive configurations were sometimes used, the phalanx was most effective when it was moving forward in attack, either in a frontal charge or in "oblique" or echeloned order against an opposing flank, as the victories of Alexander the Great and Theban innovator Epaminondas attest. When working with other formations—light infantry and cavalry—it was, at its height under Alexander, without peer.^[32]

Weaknesses of the phalanx. Nevertheless the phalanx had key weaknesses. It had some maneuverability, but once a clash was joined this decreased, particularly on rough ground. Its "dense pack" approach also made it rigid. Compressed in the heat of battle, its troops could only primarily fight facing forward. The diversity of troops gave the phalanx great flexibility, but this diversity was a double-edged sword- relying on a mix of units that was

complicated to control and position. These included not only the usual heavy infantrymen, cavalry and light infantry—but also various elite units, medium armed groups, foreign contingents with their own styles and shock units of war-elephants.^[33] Such "mixed" forces presented additional command and control problems. If properly organized and fighting together a long time under capable leaders, they could be very proficient. The campaigns of Alexander, and Pyrrhus (a Hellenic-style formation of mixed contingents) show this. Without such long term cohesion and leadership however, their performance was uneven. By the time the Romans were engaging against Hellenistic armies the Greeks had ceased to use strong flank guards and cavalry contingents, and their system had degenerated into a mere clash of phalanxes. This was the formation overcome by the Romans at Cynoscephalae.

Advantages of Roman infantry. The Romans themselves had retained some aspects of the phalanx in their early legions, most notably the final line of fighters in the classic "triple line", the spearmen of the triarii. The long pikes of the triarii were to eventually disappear, and all hands were uniformly equipped with short sword, shield and pilum, and deployed in the distinctive Roman tactical system, which provided more standardization and cohesion in the long run over the Hellenic type formations.

Phalanxes facing the legion were vulnerable to the more flexible Roman "checkerboard" deployment, which provided each fighting man a good chunk of personal space to engage in close order fighting. The manipular system also allowed entire Roman sub-units to maneuver more widely, freed from the need to always remain tightly packed in rigid formation. The deep three-line deployment of the Romans allowed combat pressure to be steadily applied forward. Most phalanxes favored one huge line several ranks deep. This might do well in the initial stages, but as the battle entangled more and more men, the stacked Roman formation allowed fresh pressure to be imposed over a more extended time. As combat lengthened and the battlefield compressed, the phalanx might thus become exhausted or rendered immobile, while the Romans still had enough left to not only maneuver but to make the final surges forward.^[15] Hannibal's deployment at Zama appears to recognize this—hence the Carthaginian also used a deep three-layer approach, sacrificing his first two lower quality lines and holding back his combat-hardened veterans of Italy for the final encounter. Hannibal's arrangement had much to recommend it given his weakness in cavalry and infantry, but he made no provision for one line relieving the other as the Romans did. Each line fought its own lonely battle and the last ultimately perished when the Romans reorganized for a final surge.

The legions also drilled and trained together over a more extended time, and were more uniform and streamlined, (unlike Hannibal's final force and others) enabling even less than brilliant army commanders to maneuver and position their forces proficiently. These qualities, among others, made them more than a match for the phalanx, when they met in combat.^[21]

According to Polybius, in his comparison of the phalanx versus the Roman system:

".. Whereas the phalanx requires one time and one type of ground.. Its use requires flat and level ground which is unencumbered by any obstacles.. If the enemy refuses to come down to [meet it on level ground].. what purpose can the phalanx serve? .. [Also] the phalanx soldier cannot operate in either smaller units or singly, whereas the Roman formation is highly flexible. Every Roman soldier.. can adapt himself equally well to any place of time and meet an attack from any quarter.. Accordingly since the effective use of parts of the Roman army is so much superior, their plans are much more likely to achieve success."^[32]

Versus Pyrrhus

See detailed article Pyrrhus of Epirus

The Greek king Pyrrhus' phalangical system was to prove a tough trial for the Romans. Despite several defeats the Romans inflicted such losses on the Epirote army that the phrase "Pyrrhic victory" has become a byword for a victory won at a terrible cost. A skillful and experienced commander, Pyrrhus deployed a typically mixed phalanx system, including shock units of war-elephants, and formations of light infantry (peltasts), elite units, and cavalry to support his infantry. Using these he was able to defeat the Romans twice, with a third battle deemed inconclusive or a limited Roman tactical success by many scholars. The battles below (see individual articles for detailed accounts)

illustrate the difficulties of fighting against phalanx forces. If well led and deployed (compare Pyrrhus to the fleeing Perseus at Pydna below), they presented a credible infantry alternative to the heavy legion. The Romans however were to learn from their mistakes. In subsequent battles after the Pyrrhic wars, they showed themselves masters of the Hellenic phalanx.

- Battle of Heraclea
- Battle of Asculum
- Battle of Beneventum

Notable triumphs

Battle of Cynoscephalae (*See more detailed article*)

In this battle the Macedonian phalanx originally held the high ground but all of its units had not been properly positioned due to earlier skirmishing. Nevertheless, an advance by its left wing drove back the Romans, who counterattacked on the right flank and made some progress against a somewhat disorganized Macedonian left. However the issue was still in doubt, until an unknown tribune (officer) detached 20 maniples from the Roman line and made an encircling attack against the Macedonian rear. This caused the enemy phalanx to collapse, securing a rout for the Romans. The more flexible, streamlined legionary organization had exploited the weaknesses of the densely packed phalanx. Such triumphs secured Roman hegemony in Greece and adjoining lands.

Battle of Pydna (*See more detailed article*)

At Pydna the contenders deployed on a relatively flat plain, and the Macedonians had augmented the infantry with a sizeable cavalry contingent. At the hour of decision, the enemy phalanx advanced in formidable array against the Roman line, and made some initial progress. However, the ground it had to advance over was rough, and the powerful phalangial formation lost its tight cohesion. The Romans absorbed the initial shock and came on into the fray, where their more spacious formation and continuously applied pressure proved decisive in hand to hand combat on the rough ground. Shield and sword at close quarters on such terrain neutralized the long pike, and supplementary Macedonian weapons (lighter armor and a dagger-like short sword) made an indifferent showing against the skillful and aggressive assault of the heavy Roman infantrymen. The opposition also failed to deploy supporting forces effectively to help the phalanx at its time of dire need. Indeed the Macedonian commander, Perseus, seeing the situation deteriorating, seems to have fled without even bringing his cavalry into the engagement. The affair was decided in less than two hours, with a comprehensive defeat for the Macedonians.

Other anti-phalanx tactics

"Breaking phalanxes" illustrates more of the Roman army's flexibility. When the Romans faced phalangite armies, the legions often deployed the velites in front of the enemy with the command to *contendite vestra sponte*, to cause confusion and panic into the solid blocks of the phalanxes. Meanwhile, auxilia archers were deployed on the wings of the legion in front of the cavalry, in order to defend their withdrawal. These archers were ordered to *eiacular e flammis*, fire incendiary arrows into the enemy. The cohorts then advanced in a wedge formation, supported by the velites' and auxiliaries' fire, and charged into the phalanx at a single point, breaking it, then flanking it with the cavalry to seal the victory. See the Battle of Beneventum for evidence of fire-arrows being used.

Versus Hannibal's Carthage

Tactical superiority of Hannibal's forces. While not a classic phalanx force, Hannibal's army was composed of "mixed" contingents and elements common to Hellenic formations, and it is told that towards the end of his life, Hannibal reportedly named Pyrrhus as the commander of the past that he most admired ^[34] Rome however had blunted Pyrrhus' hosts prior to the rise of Hannibal, and given their advantages in organization, discipline, and resource mobilization, why did they not make a better showing in the field against the Carthaginian, who throughout most of his campaign in Italy suffered from numerical inferiority and lack of support from his homeland?

Hannibal's individual genius, the steadiness of his core troops (forged over several years of fighting together in Spain, and later in Italy) and his cavalry arm seem to be the decisive factors. Time after time Hannibal exploited the tendencies of the Romans, particularly their eagerness to close and achieve a decisive victory. The cold, tired, wet legionnaires that slogged out of the Trebia River to form up on the river bank are but one example of how Hannibal forced or manipulated the Romans into fighting on his terms, and on the ground of his own choosing. The later debacles at Lake Trasimene and Cannae, forced the proud Romans to avoid battle, shadowing the Carthaginians from the high ground of the Apennines, unwilling to risk a significant engagement on the plains where the enemy cavalry held sway.^[21]

Growing Roman tactical sophistication and ability to adapt overcomes earlier disasters. But while the case of Hannibal underscored that the Romans were far from invincible, it also demonstrated their long-term strengths. They isolated and eventually bottled up the Carthaginians and hastened their withdrawal from Italy with constant maneuver. More importantly, they began a counterattack into Spain and Africa. They were willing to absorb the humiliation in Italy and remain on the strategic defensive, but with typical relentless persistence they struck elsewhere, to finally crush their foes.^[21]

They also learned from those enemies. The operations of Scipio were an improvement on some of those who had previously faced Hannibal, showing a higher level of advance thinking, preparation and organization. (Compare with Sempronius at the Battle of the Trebia River for example). Scipio's contribution was in part to implement more flexible maneuver of tactical units, instead of the straight-ahead, three-line grind favored by some contemporaries. He also made better use of cavalry, traditionally an arm in which the Romans were lacking. His operations also included pincer movements, a consolidated battle line, and "reverse Cannae" formations and cavalry movements. His victories in Spain and the African campaign demonstrated a new sophistication in Roman warfare and reaffirmed the Roman capacity to adapt, persist and overcome.^[35] See detailed battles:

- Battle of Baecula
- Battle of Ilipa
- Battle of Zama

Roman infantry versus Gallic and the Germanic tribes

Barbarian Armies

Views of the Gallic enemies of Rome have varied widely. Some older histories consider them to be backward savages, ruthlessly destroying the civilization and "grandeur that was Rome." Some modernist views see them in a proto-nationalist light, ancient freedom fighters resisting the iron boot of empire. Often their bravery is celebrated as worthy adversaries of Rome. See the Dying Gaul for an example. The Gallic opposition was also composed of a large number of different peoples and tribes, geographically ranging from the mountains of Switzerland, to the lowlands of France, to the forests of the Rhineland, and thus are not easy to categorize. The term "Gaul" has also been used interchangeably to describe Celtic peoples farther afield in Britain and Scotland, adding even more to the diversity of peoples lumped together under this name. From a military standpoint however, they seem to have shared certain general characteristics: tribal polities with a relatively small and lesser elaborated state structure, light weaponry, fairly unsophisticated tactics and organization, a high degree of mobility, and inability to sustain combat power in their field forces over a lengthy period.^[36] Roman sources reflect on the prejudices of their times, but nevertheless testify to the Gauls fierceness and bravery.

"Their chief weapons were long, two-edged swords of soft iron.. For defense they carried small wicker shields. Their armies were undisciplined mobs, greedy for plunder.. Brave to the point of recklessness, they were formidable warriors, and the ferocity of their first assault inspired terror even in the ranks of veteran armies."^[37]

Early Gallic victories

Though popular accounts celebrate the legions and an assortment of charismatic commanders quickly vanquishing massive hosts of "wild barbarians",^[38] Rome suffered a number of early defeats against such tribal armies. As early as the Republican period (circa 390–387 BC), they had sacked Rome under Brennus, and had won several other victories such as the Battle of Noreia and the Battle of Arausio. The foremost Gallic triumph in this early period was "*The Day of Allia*"- July 18- when Roman troops were routed and driven into the Allia River. Henceforth, July 18 was considered an unlucky date on the Roman Calendar.^[39]

Some writers suggest that as a result of such debacles, the expanding Roman power began to adjust to this vigorous, fast-moving new enemy.^[40] The Romans began to phase out the monolithic phalanx they formerly fought in, and adopted the more flexible manipular formation. The circular hoplite shield was also enlarged and eventually replaced with the rectangular *scutum* for better protection. The heavy phalanx spear was replaced by the pila, suitable for throwing. Only the veterans of the *triarii* retained the long spear- vestige of the former phalanx. Such early reforms also aided the Romans in their conquest of the rest of Italy over such foes as the Samnites, Latins and Greeks.^[41] As time went on Roman arms saw increasing triumph over the Gallics, particularly in the campaigns of Caesar. In the early imperial period however, Germanic warbands inflicted one of Rome's greatest military defeats, (the Battle of the Teutoburg Forest) which saw the liquidation of three imperial legions, and was to spark a limit on Roman expansion in the West. And it was these Germanic tribes in part (most having some familiarity with Rome and its culture, and becoming more Romanized themselves) that were to eventually bring about the Roman military's final demise in the West. Ironically, in the final days, the bulk of the fighting was between forces composed mostly of barbarians on either side.^[42]

Tactical problems versus tribes

Tribal strengths

Whatever their particular culture, the Gallic and Germanic tribes generally proved themselves to be tough opponents, racking up several victories over their enemies. Some historians show that they sometimes used massed fighting in tightly packed phalanx-type formations with overlapping shields, and employed shield coverage during sieges. In open battle, they sometimes used a triangular "wedge" style formation in attack. Their greatest hope of success lay in 4 factors: (a) numerical superiority, (b) surprising the Romans (via an ambush for example) or in (c) advancing quickly to the fight, or (d) engaging the Romans over heavily covered or difficult terrain where units of the fighting horde could shelter within striking distance until the hour of decision, or if possible, withdraw and regroup between successive charges.^[43]

Most significant Gallic and Germanic victories show two or more of these characteristics. The Battle of the Teutoburg Forest contains all four: surprise, a treacherous defection by Arminius and his contingent, numerical superiority, quick charges to close rapidly, and favorable terrain and environmental conditions (thick forest and pounding rainstorms) that hindered Roman movement and gave the warriors enough cover to conceal their movements and mount successive attacks against the Roman line.^[44]

Tribal weaknesses

Weaknesses in organization and equipment. Against the fighting men from the legion however, the Gauls, Iberians and Germanic forces faced a daunting task. Individually, in single combat, the fierce barbarian warrior could more than hold his own against a Roman.^[45] In massed fighting however, the barbarians' rudimentary organization and tactics fared poorly against the well oiled machinery that was the Legion. The fierceness of the Gallic and Germanic charges is often commented upon by some writers, and in certain circumstances they could overwhelm Roman lines. Nevertheless the in-depth Roman formation allowed adjustments to be made, and the continual application of forward pressure made long-term combat a hazardous proposition for the Gauls.

Flank attacks were always possible, but the legion was flexible enough to pivot to meet this, either through sub-unit maneuver or through deployment of lines farther back. The cavalry screen on the flanks also added another layer of security, as did nightly regrouping in fortified camps. The Gauls and Germans also fought with little or no armor and with weaker shields, putting them at a disadvantage against the legion. Other items of Roman equipment from studded sandals, to body armor, to metal helmets added to Roman advantages. Generally speaking, the Gauls and Germans needed to get into good initial position against the Romans and to overwhelm them in the early phases of the battle. An extended set-piece slogging match between the lightly armed tribesmen and the well organized heavy legionaries usually spelled doom for the tribal fighters.^[43] Caesar's slaughter of the Helvetii near the Saône River is just one example of tribal disadvantage against the well-organized Romans,^[46] as is the victory of Germanicus at the Weser River and Agricola against the Celtic tribesmen of Caledonia (Scotland) circa 84 A.D.^[47]

Weaknesses in logistics. Roman logistics also provided a trump card against Germanic foes as it had against so many previous foes. Tacitus in his *Annals* reports that the Roman commander Germanicus recognized that continued operations in Gaul would require long trains of men and material to come overland, where they would be subject to attack as they traversed the forests and swamps. He therefore opened sea and river routes, moving large quantities of supplies and reinforcements relatively close to the zone of battle, bypassing the dangerous land routes. In addition, the Roman fortified camps provided secure staging areas for offensive, defensive and logistical operations, once their troops were deployed. Assault roads and causeways were constructed on marshy ground to facilitate maneuver, sometimes under direct Gallic attack. These Roman techniques repeatedly defeated their Germanic adversaries.^[48] While Germanic leaders and fighters influenced by Roman methods sometimes adapted them, most tribes did not have the strong organization of the Romans. As German scholar Hans Delbrück notes in his "History of the Art of War":

".. the superiority of the Roman art of warfare was based on the army organization.. a system that permitted very large masses of men to be concentrated at a given point, to move in an orderly fashion, to be fed, to be kept together. The Gauls could do none of these things."^[49]

Tribal chariots

The Gallics also demonstrated a high level of tactical prowess in some areas. Gallic chariot warfare for example, showed a high degree of integration and coordination with infantry, and Gallic horse and chariot assaults sometimes threatened Roman forces in the field with annihilation. At the Battle of Sentinum for example, c. 295 BC, the Roman and Campanian cavalry encountered Gallic war-chariots and were routed in confusion- driven back from the Roman infantry by the unexpected appearance of the fast-moving Gallic assault. The discipline of the Roman infantry restored the line however, and a counterattack eventually defeated the Gallic forces and their allies.^[50]

The accounts of Polybius leading up to the Battle of Telamon, c. 225 BC mention chariot warfare, but it was ultimately unsuccessful. The Gauls met comprehensive defeat by the Roman legions under Papus and Regulus. Chariot forces also attacked the legions as they were disembarking from ships during Caesar's invasion of Britain, but the Roman commander drove off the fast-moving assailants using covering fire (slings, arrows and engines of war) from his ships, and reinforcing his shore party of infantry to charge and drive off the attack. In the open field against Caesar, the Gallic/Celtics apparently deployed chariots with a driver and an infantry fighter armed with javelins. During the clash, the chariots would drop off their warriors to attack the enemy and retire a short distance away, massed in reserve. From this position they could retrieve the assault troops if the engagement was going badly, or apparently pick them up and deploy elsewhere. Caesar's troops were discomfited by one such attack, and he met it by withdrawing into his fortified redoubt. A later Gallic attack against the Roman camp was routed.^[51]

It should be noted also that superb as the Gallic fighters were, chariots were already declining as an effective weapon of war in the ancient world with the rise of mounted cavalry.^[52] At the battle of Mons Grapius in Caledonia (circa 84AD), Celtic chariots made an appearance. However they were no longer used in an offensive role but primarily for pre-battle show - riding back and forth and hurling insults. The main encounter was decided by infantry and mounted

cavalry.^[47]

Tribal guerrillas

The Iberian zone of struggle. The Gallic-Celtic-Iberian peoples, like many other tribes falling under the general "Gallic" banner, put up an obstinate fight against Roman hegemony. Based in what is now modern day Spain and Portugal, they fought continuously, with varying levels of intensity, for almost two centuries, beginning around 218 B.C. The initial hegemons of Spain were the Carthaginians who struggled against various tribes to carve out colonies and a commercial empire, primarily in coastal enclaves. Carthaginian defeats by Rome brought struggle against a new, harsher imperium. Tribes such as the Celtiberi carried out a strong resistance, a struggle later continued by other groups such as the Lusitani, under Viriathus. The Lusitanian War and the Numantine War are but a few examples of the prolonged conflict, which cut across 20 decades of Roman history. Full conquest was not achieved until the time of Augustus. The vicious long-term fighting made Hispania a place of dread for the Roman soldier. Historian Sir Edward Creasy, in his "The Fifteen Decisive Battles of the World" had this to say about the Iberian conflicts.^[53]

"The war against the Spaniards, who, of all the nations subdued by the Romans, defended their liberty with the greatest obstinacy... the Romans in both provinces were so often beaten, that nothing was more dreaded by the soldiers at home than to be sent there...

Roman tactics. Rome deployed its standard methods, with greater emphasis on blended units of light troops, cavalry and heavy infantry when confronting the guerrilla or mobile tactics used by the Iberians. Roman fortified camps were also valuable in protecting the troops and providing bases of operation. While combat results were mixed in the open field, the Romans did comparatively well when besieging Iberian cities, systematically eliminating enemy leaders, supply bases and centers of resistance. Destruction of Iberian resources by burning grain fields or demolishing villages also put the native resistance under greater pressure. The operations of Scipio during the Numantine War illustrate these methods, including a crackdown on lax practices and tightening of legionary discipline.^[54] Other Roman tactics touched on the political sphere such as the "pacification" treaties of Gracchus, and treachery and trickery, as in the massacres of tribal leaders by Lucullus and Galba under guise of negotiation. Rome frequently capitalized on divisions among the tribes. A "divide and conquer" policy was in use, with competing (and sometimes insincere) treaties being negotiated to isolate targeted groups, and allied tribes being used to subdue others.^[55]

Celtic-Iberian tactics. Fighting for their independence and survival, the Iberian tribes used fortified cities or strongpoints to defend against their enemies, and mixed this with mobile warfare in formations ranging from small guerrilla bands, to large units numbering thousands of men. The Celtic/Iberian horsemen in particular appear to be more than a match for those of Rome, a fact proved in earlier years by the key role such allied cavalry played in Hannibal's victories. Favorable mobility and knowledge of the local terrain were to help the tribes immensely. One of the most successful ambushes was pulled off by a chieftain named Carus, who liquidated around 6,000 Romans in a combined cavalry-infantry strike. Another was executed by one Caesarus, who took advantage of a disorderly Roman pursuit under Mummius, to lay a trap that resulted in Roman losses of around 9,000 men. A similar Iberian "turn and fight" gambit is also recorded as being successful against Galba. Roman arms however triumphed over two grinding centuries of conflict. See "*Appian's History of Rome: The Spanish Wars*" for a more detailed discussion of individual battles, leaders and engagements.^[54]

Superior tactical organization: victory of Caesar at the Sambre River

Superior Gallic mobility and numbers often troubled Roman arms, whether deployed in decades-long mobile or guerrilla warfare or in a decisive field engagement. The near defeat of Caesar in his Gallic campaign confirms this latter pattern, but also shows the strengths of Roman tactical organization and discipline. At the Battle of the Sabis river, (*see more detailed article*) contingents of the Nervii, Atrebat, Veromandui and Aduatuci tribes massed secretly in the surrounding forests as the main Roman force was busy making camp on the opposite side of the river. Some distance away behind them, slogged two slow moving legions with the baggage train. Engaged in foraging and camp construction the Roman forces were somewhat scattered. As camp building commenced, the barbarian forces launched a ferocious attack, streaming across the shallow water and quickly assaulting the distracted Romans. This incident is discussed in Caesar's *Gallic War Commentaries*.^[56]

So far the situation looked promising for the warrior host.^[36] The 4 conditions above were in their favor: (a) numerical superiority, (b) the element of surprise, (c) a quick advance/assault, and (d) favorable terrain that masked their movements until the last minute. Early progress was spectacular as the initial Roman dispositions were driven back. A rout looked possible. Caesar himself rallied sections of his endangered army, impressing resolve upon the troops. With their customary discipline and cohesion, the Romans then began to drive back the barbarian assault. A charge by the Nervi tribe through a gap between the legions however almost turned the tide again, as the onrushing warriors seized the Roman camp and tried to outflank the other army units engaged with the rest of the tribal host. The initial phase of the clash had passed however and a slogging match ensued. The arrival of the two rear legions that had been guarding the baggage reinforced the Roman lines. Led by the 10th Legion, a counterattack was mounted with these reinforcements that broke the back of the barbarian effort and sent the tribesmen reeling in retreat. It was a close run thing, illustrating both the fighting prowess of the tribal forces, and the steady, disciplined cohesion of the Romans. Ultimately, the latter was to prove decisive in Rome's long fought conquest of Gaul.

Persisting logistics strategy: Gallic–Germanic victory at Gergovia

As noted above, the fierce charge of the Germanics and their individual prowess is frequently acknowledged by several ancient Roman writers.^[57] The Battle of Gergovia however demonstrates that the Gallic/Germanics were capable of a level of strategic insight and operation beyond merely mustering warriors for an open field clash. Under their war leader Vercingetorix, the Gallics pursued what some modern historians have termed a "persisting" or "logistics strategy" - a mobile approach relying not on direct open field clashes, but avoidance of major battle, "scorched earth" denial of resources, and the isolation and piecemeal destruction of Roman detachments and smaller unit groupings.^[58] When implemented consistently, this strategy saw some success against Roman operations. According to Caesar himself, during the siege of the town of Bourges, the lurking warbands of Germans were:

"on the watch for our foraging and grain-gatherer parties, when necessarily scattered far afield he attacked them and inflicted serious losses... This imposed such scarcity upon the army that for several days they were without grain and staved off starvation only by driving cattle from remote villages."^[59]

Caesar countered with a strategy of enticing the Germanic forces out into open battle, or of blockading them into submission.

At the town of Gergovia, resource denial was combined with concentration of superior force, and multiple threats from more than one direction. This caused the opposing Roman forces to divide, and ultimately fail. Gergovia was situated on the high ground of a tall hill, and Vercingetorix carefully drew up the bulk of his force on the slope, positioning allied tribes in designated places. He drilled his men and skirmished daily with the Romans, who had overrun a hilltop position, and had created a small camp some distance from Caesar's larger main camp. A rallying of about 10,000 disenchanted Aeduan tribesmen (engineered by Vercingetorix's agents) created a threat in Caesar's rear, including a threat to a supply convoy promised by the allied Aeduan, and he diverted four legions to meet this danger.^[60] This however gave Vercingetorix's forces the chance to concentrate in superior strength against the smaller two-legion force left behind at Gergovia, and desperate fighting ensued. Caesar dealt with the rear threat,

turned around and by ruthless forced marching once again consolidated his forces at town. A feint using bogus cavalry by the Romans drew off part of the Gallic assault, and the Romans advanced to capture three more enemy outposts on the slope, and proceeded towards the walls of the stronghold. The diverted Gallic forces returned however and in frantic fighting outside the town walls, the Romans lost 700 men, including 46 centurions.

Caesar commenced a retreat from the town with the victorious Gallic warriors in pursuit. The Roman commander however mobilized his 10th Legion as a blocking force to cover his withdrawal and after some fighting, the tribesmen themselves withdrew back to Gergovia, taking several captured legion standards. The vicious fighting around Gergovia was the first time Caesar had suffered a military reverse, demonstrating the Germanic martial valor noted by the ancient chroniclers. The hard battle is referenced by the Roman historian Plutarch, who writes of the Avernii people showing visitors a sword in one of their temples, a weapon that reputedly belonged to Caesar himself. According to Plutarch, the Roman general was shown the sword in the temple at Gergovia some years after the battle, but he refused to reclaim it, saying that it was consecrated, and to leave it where it was.^[61]

The Germanics were unable to sustain their strategy however, and Vercingetorix was to become trapped in Alesia, facing not divided sections or detachments of the Roman Army but Caesar's full force of approximately 70,000 men (50,000 legionnaires plus numerous additional auxiliary cavalry and infantry). This massive concentration of Romans was able to besiege the fortress in detail and repulse Gallic relief forces, and it fell in little more than a month.^[61] Vercingetorix overall persisting logistics policy however, demonstrates a significant level of strategic thinking. As historian A. Goldsworthy (2006) notes: "His [Vercingetorix's] strategy was considerably more sophisticated than that employed by Caesar's earlier opponents..^[62] At Alesia this mobile approach became overly static. The Gauls gave battle at a place where they were inadequately provisioned for an extended siege, and where Caesar could bring his *entire* field force to bear on a single point without them being dissipated, and where his lines of supply were not effectively interdicted.^[63] At Gergovia by contrast, Caesar's strength was divided by the appearance of another Germanic force in his rear (the Aedans)- threatening his sources and lines of supply. Together with a strong defensive anvil, (the town) supported by an offensive hammer (the open field forces), and coupled with previous resource denial pressure over time, the Romans were forced to retreat, and the Germanics secured a victory. As one historian notes about the persisting strategy:

"But before the defeat at Alesia, Vercingetorix's strategy had driven Cesar from central Gaul.. In finding and overwhelming Roman foragers as Fabius had done to Hannibal's men, the Gauls concentrated against weakness to win many small victories. Their strength in cavalry helped them concentrate rapidly, facilitating the application of the combat element in their strategy, though attacking foragers and grain gatherers was also intrinsic to the logistic aspect of their campaign." ^[64]

Victory through attrition

In their battles against a wide variety of opponents, Rome's ruthless persistence, greater resources and stronger organization wore down their opponents over time.^[65] In Spain, resources were thrown at the problem until it yielded over 150 years later- a slow, harsh grind of endless marching, constant sieges and fighting, broken treaties, burning villages and enslaved captives. As long as the Roman Senate and its successors were willing to replace and expend more men and material decade after decade, victory could be bought through a strategy of exhaustion.^[66]

The systematic wastage and destruction of enemy economic and human resources was called *vastatio* by the Romans. Crops and animals were destroyed or carried off, and local populaces were massacred or enslaved. Sometimes these tactics were also used to conduct punitive raids on barbarian tribes which had performed raids across the border. In the campaigns of Germanicus, Roman troops in the combat area carried out a "scorched earth" approach against their Germanic foes, devastating the land they depended on for supplies. *"The country was wasted by fire and sword fifty miles round; nor sex nor age found mercy; places sacred and profane had the equal lot of destruction, all razed to the ground.."* (Tacitus, *Annals*). The Roman "grind down" approach is also seen in the Bar Kokba Jewish revolt against the Romans. The Roman commander Severus, avoided meeting the hard-fighting

Jewish rebels in the open field. Instead he relied on attacking their fortified strongpoints and devastating the zone of conflict in a methodical campaign.^[67] This "attritional" aspect of the Roman approach to combat contrasts with the notion of brilliant generalship or tactics sometimes seen in popular depictions of the Roman infantry.

Some historians note however that Rome often balanced brutal attrition with shrewd diplomacy, as demonstrated by Caesar's harsh treatment of Gallic tribes that opposed him, but his sometimes conciliatory handling of those that submitted. Rome also used a variety of incentives to encourage cooperation by the elites of conquered peoples, co-opting opposition and incorporating them into the structure of the empire. This carrot and stick approach forms an integral part of "the Roman way" of war.^[68]

Roman infantry versus cavalry

Tactical problems of fighting cavalry

Cavalry opponents were one of if not the toughest challenges faced by the Roman infantry. Combining both missile and shock capability with extensive mobility, cavalry exploited the inherent weakness of the legion—its relatively slow movement and deployment. Defeat by strong cavalry forces is a recurring event in Roman military history. The campaigns of Hannibal illustrate this well, as Numidian and Spanish/Gallic horsemen repeatedly outflanked Roman formations, dealing devastating blows in the sides and rear. Hannibal's great victory at Cannae (considered one of the greatest Roman defeats ever) was primarily an infantry struggle, but the key role was played by his cavalry, as in his other victories.

An even more dramatic demonstration of Roman vulnerability is shown in the numerous wars against Parthian heavy cavalry. The Parthians and their successors used large numbers of fast-moving light riders to harass and skirmish, and delivered the coup de grâce with heavily armored lancers called "cataphracts". Both types of troops used powerful composite bows that shot arrows of sufficient strength to penetrate Roman armor. The cataphracts extended combat power by serving as shock troops, engaging opposing forces with their heavy lances in thundering charges after they had been "softened up" by swarms of arrows. The Parthians also conducted a "scorched earth" policy against the Romans, refusing major set-piece encounters, while luring them deeper on to unfavorable ground, where they would lack water supplies and a secure line of retreat. The debacle of the Battle of Carrhae saw a devastating defeat of Roman arms by the Parthian cavalry.^[69] Against such foes the Romans faced a difficult task. How could they be defeated?

Successful tactics

Clues exist in the earlier campaigns of Alexander the Great against mounted Asiatic warriors—engaging the horsemen with strong detachments of light infantry and missile troops, and driving them off with charges by Alexander's heavy cavalry units. The Roman variant continued the same "combined arms" approach, with a larger role for cavalry as the empire went on. The Eastern half of the Roman Empire, particularly, was ultimately to rely mostly on cavalry forces.

Adjustments of Ventidius. The operations of the Roman commander Publius Ventidius Bassus illustrate three general tactics used by the infantry to fight their mounted foes. These drew on Caesar's veteran legions, and made Ventidius the only Roman general to celebrate a triumph against the Parthians. In three separate battles, he not only managed to defeat the Parthian armies and drive them out of Roman territory, but also managed to kill Parthia's three top military commanders during the battles.^[70] The adjustments of Ventidius were as follows:^[70]

1. *Increase in firepower.* Ventidius sought to neutralize the Parthian advantage in firepower, by adding his own, and provided his legions with numerous slingers whose furious fire was instrumental in checking the Parthian horsemen during several battles. In subsequent engagements, other Roman commanders increased cavalry units and slingers, with the latter being supplied with leaden bullets which gave more range and killing power.^[70]
2. *Securing the high ground and other terrain features.* In his three victories over the horsemen, Ventidius had his infantry secure the high ground, bolstering defensive positions and maneuvers with withering covering fire by the

slingers. Seizure of key terrain features also obstructed avenues of attack and provided anchor points that allowed maneuvering detachments to counterattack, or to fall back if unfavorable conditions developed. Against the horsemen, heavy infantry units had to work closely with cavalry and light troops, and be mutually supporting, or they could be quickly isolated and destroyed.^[70]

3. *Controlled charges from a compact formation.* A tight formation was maintained on the march, and special care had to be taken when crossing a mountain, ravine or bridge. In such cases, sub-sections of the legion had to be redeployed to provide covering and blocking forces until the army had safely navigated the route.^[71] Once encamped in the zone of battle and controlling the high ground, Ventidius did not prematurely venture on to flat terrain or allow his forces to lose cohesion as at Careahae. The legions deployed in three lines, forming a compact defensive front to beat off any heavy cavalry charge, and let the enemy come to them. As the slingers and light troops mauled the approaching Parthian horsemen, Ventidius ordered a series of controlled charges when the enemy was within range, being careful not to have his troops advance too far forward where they could be cut off. In the meantime, the troops were continuously covered by the deadly sling-fire. This tactic inflicted substantial casualties on the Parthian forces and weakened them to the extent that the Romans could order a general counter-offensive against the enemy that led to their defeat or scattering.^[72]

Combined arms and quick advance. In the later Roman empire, cavalry forces played a larger role, with the infantry in support. The campaign of the Emperor Julian II against the Persians is instructive in this regard. On June 22, 363 a large-scale clash occurred near the town of Maranga. Facing an enemy that threatened to blanket his troops with a hail of arrows, and in danger of envelopment, Julian deployed his force in a crescent formation, and ordered an advance by both infantry and cavalry on the double, thwarting both dangers by closing quickly. The gambit was successful. After a long battle, the Persians withdrew- a tactical victory (albeit a costly one for the Romans according to some historians).^[73] The work of Roman historian Ammianus Marcellinus offers a detailed description of the Persian campaign, including the quick charge by the heavy Roman infantry under Julian.

"To prevent the preliminary volleys of the archers from disrupting our ranks he (Julian) advanced at the double and so ruined the effect of their fire ... Roman foot in close order made a mighty push and drove the serried ranks of the enemy before them ..."

Marcellinus's commentary also sharply contrasts the fighting spirit of the Persian infantrymen with those of Rome, stating that they had "aversion to pitched infantry battles."^[74] In an earlier engagement outside the walls of Ctesiphon, Marcellinus again notes the value of the quick advance by the infantry:

"both sides fought hand-to-hand with spears and drawn swords; the quicker our men forced themselves into the enemy's line the less they were exposed to danger from arrows."^[75]

Mixed results against major cavalry enemies. Rome's overall record against the Parthians was mixed, as it was against the horsemen of Hannibal, and some Gallic opponents. Subsequent Roman leaders like Anthony invaded Parthian territory but had to withdraw after severe losses. Others like Severus and Trajan saw some success, but could never hold the Parthian area permanently, and also pulled out.^[70] Nevertheless, the battles of Ventidius and Julian show that the Roman infantry, when properly handled and maneuvered, and when working in conjunction with other supporting arms like slingers, could, at least partially, meet the challenge of the cavalryman.^[70]

Assessment of the Roman infantry

Central factors in Roman success

Some elements that made the Romans an effective military force, both tactically and at higher levels, were:

The Romans were able to copy and adapt the weapons and methods of their opponents more effectively. Some weapons, such as the gladius, were adopted outright by the legionaries. Publius asserts that the *pilum* was of Samnite origin, and the shield was based on Greek design.^[76] In other cases, especially formidable units of enemy forces were invited to serve in the Roman army as auxiliaries after peace was made. In the naval sphere, the Romans

followed some of the same methods they used with the infantry, dropping their ineffective designs and copying, adapting and improving on Punic warships, and introducing heavier marine contingents (infantry fighters) on to their ships.^[77]

Roman organization was more flexible than those of many opponents. Compared to the tightly packed spearmen of the phalanx, the Roman heavy infantry, through their training and discipline, and operating in conjunction with light foot and cavalry, could quickly adopt a number of methods and formations depending on the situation. These range from the Testudo formation during siege warfare, to a hollow square against cavalry attack, to mixed units of heavy foot, horse and light infantry against guerrillas in Spain, to the classic "triple line" or checkerboard patterns. Against more sophisticated opponents the Romans also showed great flexibility at times, such as the brilliant adjustments Scipio made against Hannibal at Zama. These included leaving huge gaps in the ranks to trap the charging elephants, and the recall, reposition and consolidation of a single battle line that advanced to the final death struggle against the Carthaginian veterans of Italy.^[78]

Roman discipline, organization and logistical systemization sustained combat effectiveness over a longer period. Notably, the Roman system of *castra*, or fortified camps, allowed the army to stay in the field on favorable ground and be rested and resupplied for battle. Well organized Roman logistics also sustained combat power, from routine resupply and storage, to the construction of military roads, to state run arsenals and weapons factories, to well organized naval convoys that helped stave off defeat by Carthage. The death of a leader generally did not cause the legions to lose heart in battle. Others stepped to the fore and carried on. In the defeat by Hannibal at the River Trebia, 10,000 Romans cut their way through the debacle to safety, maintaining unit cohesion when all around was rout, a testimony to their tactical organization and discipline.^[77]

The Romans were more persistent and more willing to absorb and replace losses over time than their opponents. Unlike other civilizations, the Romans kept going relentlessly until typically their enemies had been completely crushed or neutralized. The army acted to implement policy and were not allowed to stop unless they received a command from the emperor or a decree from the senate.

Against the tribal polities of Europe, particularly in Hispania, Roman tenacity and material weight eventually wore down most opposition. The tribes of Europe did not have a state or economic structure able to support lengthy campaigns and therefore could often (but not always) be made to change their minds about opposing Roman hegemony. The defeat in the Teutoburg Forest might seem like an exception, but even here, the Romans were back on the warpath 5 years later with major forces against their Germanic opponents. That there is an obvious limit to endless persistence does not negate the general pattern.

Where the Romans faced another large state structure, such as the Parthian Empire, they found the military road rocky indeed and were sometimes forced to an impasse. Nevertheless the distinct pattern of Roman tenacity holds. Rome suffered its greatest defeats against sophisticated Carthage, notably at Cannae, and was forced to avoid battle for a lengthy period. Yet in time, it rebuilt its forces on land and at sea, and persisted in the struggle, astonishing the Punics who expected it to sue for peace. Against the Parthians, crushing defeats did not stop the Romans, for they invaded Parthian territory several times afterwards, and though Parthia proper was never totally conquered, Rome ultimately secured a rough hegemony in the area.

Roman leadership was mixed, but over time it was often effective in securing Roman military success. Leadership debacles are common in Roman military history, from the routs against Hannibal, to the demise of the unlucky Crassus against the Parthians. The Roman polity's structuring however produced a steady supply of men willing and able to lead troops in battle- men that were held accountable for defeat or malfeasance. It was not unusual for a losing general to be prosecuted by political enemies in Rome, with some having their property confiscated and barely escaping death. The senatorial oligarchy, for all its political maneuvering, interference and other faults, provided the functions of oversight and audit over military matters, that over the course of time, shaped final results. The record is a mixed one, but whether under boisterous Republic or Imperial emperor, Rome produced enough competent leaders to secure its military dominance for over a millennium. Some of the best leaders come

from both eras, including Marius, Sulla, Scipio, Caesar, Trajan and others.

Note should be taken here of the large number of junior officers the Romans typically used to assure coordination and guidance. The initiative of such men played a key part in Roman success. Effective leadership was also bound up with the famous Roman centurions, the backbone of the legionary organization. While not all such men could be considered models of perfection, they commanded substantial respect.

The influence of Roman military and civic culture, as embodied particularly in the heavy infantry legion, gave the Roman military consistent motivation and cohesion. Such culture included but was not limited to: (a) the valuing of Roman citizenship, (b) the broad-based muster of free males into mass infantry units (as opposed to widespread use of foreign contingents, slaves or mercenaries), and (c) loyalty to those fighting units (the Legion) which remained characteristically Roman in outlook and discipline. Citizenship conveyed certain valuable rights in Roman society, and was another element that helped to promote the standardization and integration of the infantry.^[79] The citizen under arms - the legion soldier - was supposed to reflect and practice the Roman ideal of *virtus, pietas, fides*, - self-discipline, respect and faithfulness to engagements. Implementation of such ideals could be mixed according to some writers, but it was "a trilogy [driving] every aspect of military, domestic, economic and social life."^[80] As such it was a strong force for cohesion among Rome's infantrymen.

Decline of the Roman infantry

Any history of the Roman infantry must grapple with the factors that led to the decline of the heavy legions that once dominated the Western world. Such decline of course is closely linked with the decay of other facets of Rome's economy, society and political scene. Nevertheless some historians emphasize that the final demise of Rome was due to **military** defeat, however plausible (or implausible) the plethora of theories advanced by some scholars, ranging from declining tax bases, to class struggle, to lead poisoning.^[81] Two of the major factors that have occupied scholars of the military will be discussed here: barbarization and the adaptation of a "mobile reserve" strategy. There are a number of controversies in this area with dueling scholars advancing competing theories.

Changes in the legions

To combat the more frequent raids and advances of their hostile neighbors the legions were changed from slow and heavy to much lighter troops, and cavalry was introduced as a serious concept.

This meant that the new subdivided infantry lost the awesome power that the earlier legions had, meaning that whilst they were more likely to see a battle they were less likely to win it. That legion size was at an all time low was also a factor.

Roman horsemen, while fast, were actually much too weak to cope with the very cavalry based invasions of the Huns, Goths, Vandals and Sassanids. Their ineffectiveness was demonstrated at Cannae and Adrianople; in both instances the cavalry was completely destroyed by a vastly more powerful enemy horse.

"Barbarization" of the heavy infantry

"Barbarization" is a common theme in many works on Rome (See Gibbon, Mommsen, Delbrück, et al.), and thus cannot be excluded from any analysis of its infantry forces. Essentially it is argued that the increasing barbarization of the heavy legions weakened weaponry, training, morale and military effectiveness in the long run. The weapons changes described above are but one example.^[82]

It could be argued that the use of barbarian personnel was nothing new. This is accurate, however such use was clearly governed by "the Roman way." It was the barbarian personnel who had to adapt to Roman standards and organization, not the other way around. In the twilight of the empire, this was not the case. Such practices as permitting the settlement of massive, armed barbarian populations on Roman territory, the watering down of the privilege of citizenship, increasing use of alien contingents, and relaxation or removal of traditionally thorough and severe Roman discipline, organization and control, contributed to the decline of the heavy infantry.^[83]

The settlement of the *foederati* for example, saw large barbarian contingents ushered on to Roman territory, with their own organization, under their own leaders. Such groupings showed a tendency to neglect "the Roman way" in organization, training, logistics etc., in favor of their own ideas, practices and agendas. These settlements may have bought short term political peace for imperial elites, but their long term effect was negative, weakening the traditional strengths of the heavy infantry in discipline, training and deployment. They also seemed to have lessened the incentive for remaining "old Guard" troops to adhere to such strengths, since the barbarians received equal or more favor with less effort. Indeed such "allied" barbarian contingents were at times to turn on the Romans, devastating wide areas with sack and pillage and even attacking imperial army formations.^[84]

Growth of the mobile forces approach

Some scholars challenge the notion that a "mobile reserve" in the modern military sense existed in the Roman Empire, and instead argue that the shifts in organization represent a series of field armies deployed in various areas as needed, particularly in the East. Others point to the heavy fiscal difficulties and political turmoil of the later Empire that made it difficult to continue traditional policy. Controversy on the topic is lively.

Advantages of the mobile reserve strategy

The "mobile reserve" strategy, traditionally identified with Constantine I, saw reversal of the traditional "forward" policy of strong frontier fortifications backed by legions stationed near likely zones of conflict. Instead, it is argued that the best troops were pulled back into a type of "mobile reserve" closer to the center that could be deployed to trouble areas throughout the empire. Some scholars claim this was a positive development, (Luttwak, Delbruck, et al.) given growing difficulties with governing the vast empire, where political turmoil and severe financial difficulties had made the old preclusive security system untenable. Some writers such as Luttwak condemn the old style "forward" policy as indicating a "Maginot Line" mentality in the troubled latter centuries of the Empire.^[85]

Disadvantages of the mobile reserve strategy versus the "forward" policy

Ancient writers like Zosimus in the 5th century AD condemned the "reserve" policy as a major weakening of the military force. Other modern scholars (Ferrill et al.) also see the pullback as a strategic mistake, arguing that it left lower quality "second string" *limitanei* forces to stop an enemy, until the distant mobile reserve arrived. While the drop in quality did not happen immediately, it is argued that over time, the *limitanei* declined into lightly armed, static watchman type troops that were of dubious value against increasing barbarian marauders on the frontiers. The pullback of the best infantry was based more on political reasons (shoring up the power bases of the emperors and various elites) rather than on military reality. In addition it is claimed, the "forward" policy was not at all a static "Maginot" approach, but that traditional heavy legions and supporting cavalry could still move to a trouble spot by redeploying them from fortifications elsewhere along a particular frontier.^[86]

Twilight of the hard-core infantry

There are numerous other facets to the controversy, but whatever the school of thought, all agree that the traditional strengths and weaponry of the heavy infantry legion declined from the standards of earlier eras. The 4th century writer Vegetius, in one of the most influential Western military works, highlighted this decline as the key factor in military weakness, noting that the core legions always fought as part of an integrated team of cavalry and light foot. In the latter years, this formula that had brought so much success petered out. Caught between the growth of lighter armed/less organized foot soldiers, and the increasing cavalry formations of the mobile forces, the "heavies" as the dominant force, withered on the vine. This does not mean that heavy units disappeared entirely, but that their mass recruitment, formation, organization and deployment as the dominant part of the Roman military was greatly reduced. Ironically, in Rome's final battles (the Western half of the empire) the defeats suffered were substantially inflicted by infantry forces (many fighting dismounted).^[86]

Speaking of the decline of the heavy infantry, the Roman historian Vegetius lauded the old fighting units, and lamented how the heavy armor of the early days had been discarded by the weaker, less disciplined, barbarized

forces:

"Those who find the old arms so burdensome, must either receive wounds upon their naked bodies and die, or what is worse still, run the risk of being made prisoners, or of betraying the country by their flight. Thus, to avoid fatigue, they allow themselves to be butchered shamefully, like cattle."^[87]

Historian Arther Ferrill notes that even towards the end, some of the old infantry formations were still in use. Such grouping was increasingly ineffective however, without the severe close order discipline, drill and organization of old times.^[86] At the Battle of Châlons (circa 451 AD) Attila the Hun rallied his troops by mocking the once vaunted Roman infantry, alleging that they merely huddled under a screen of protective shields in close formation. He ordered his troops to ignore them and to attack the powerful Alans and Visigoths instead. It was a sad commentary on the force that had once dominated Europe, the Mediterranean and much of the Middle East. It is true that at Châlons, the Roman infantry contributed to the victory by seizing part of the battlefield's high ground. Nevertheless its day had already passed in favor of the mass levies of the barbarian federates.^[42]

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<p>Many historians have argued [...] that the fall of Rome was not primarily a military phenomenon. In fact, it was exactly that. After 410 the emperor in the West could no longer project military power to the frontiers.</p>
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Roman military personal equipment

Further information: Equipment (disambiguation)

Roman military personal equipment was produced in large numbers to established patterns and used in an established way. These standard patterns and uses were called the *res militaris* or *disciplina*. Its regular practice during the Roman Republic and Roman Empire led to military excellence and victory. The general word for army became *exercitus*, "exercise." Roman equipment (especially armor) gave them "a distinct advantage over their barbarian enemies."^[1] This did not imply that every Roman soldier had better equipment than the richer men among his opponents. According to Edward Luttwak, Roman equipment was not of a better quality than that used by the majority of its adversaries.^[2]

Initially they used weapons based on Greek and Etruscan types. On encountering the Celts they based new varieties on Celtic equipment. To defeat the Carthaginians they constructed an entire fleet *de novo* based on the Carthaginian model. Once a weapon was adopted it became standard. The standard weapons varied somewhat during Rome's long history, but the equipment and its use were never individual.

Overview of infantry

Vegetius, 4th century author of *De Re Militari*, describes the equipment he believed had been used by heavy and light infantry earlier in the empire. The names of some weapons have been changed from the Latin to the Greek forms and Greek names have been preferred, for unknown reasons, perhaps because the center of Roman military power had shifted from Rome to Constantinople. Vegetius says in translation^[3]:

The infantry (*armatura*) was heavy, because they had helmets (*cassis*), coats of mail (*catafracta*), greaves (*ocrea*), shields (*scutum*), larger swords (*gladius maior*), which they call broadswords (*spatha*), and some smaller, which they name half-broadswords (*semispathium*), five weighted darts (*plumbata*) placed in the shields, which they hurl at the beginning of the assault, then double throwables, a larger one with an iron point of nine ounces and a stock of five and one-half feet, which was called a *pilum*, but now is called a *spiculum*, in the use of which the soldiers were especially practised, and with skill and courage could penetrate the shields of the infantry and the mail of the cavalry. The other smaller had five ounces of iron and a stock of three and one-half feet, and was called a *vericulum* but now is a *verutum*. The first line, of *hastati*, and the second, of *principes*, were composed of such arms. Behind them were the bearers (*ferentarius*) and the light infantry, whom now we say are the supporters and the infantry, shield-bearers (*scutum*) with darts (*plumbata*), swords (*gladius*) and , armed just as are nearly all soldiers today. There were likewise bowmen (*sagittarius*) with helmet (*cassis*), coat of mail (*catafracta*), sword (*gladius*), arrows (*sagitta*) and bow (*arcus*). There were slingers (*funditor*) who slung small stones (*lapis*) in slings (*funda*) or cudgel-throwers (*fustibalus*). There were artillery-men (*tragularius*), who shot arrows from the *manuballista* and the *arcuballista*.



Reenactment of a Roman legion attack.

In the late Roman Republic and the early Roman Empire, most Roman infantry used swords (*gladii*) and specialized throwing spears (*pila*) as their main weapons. In the middle and Late Roman Empire, most Roman infantry used thrusting spears as their main weapons.^[4]

Personal Weapons

Pugio

A *pugio* was a dagger used by Roman soldiers. It was probably a sidearm. Like other items of legionary equipment, the dagger underwent some changes during the 1st century. Generally, it had a large, leaf-shaped blade 18 to 28 cm long and 5 cm or more in width. A raised midrib ran the length of each side, either simply standing out from the face or defined by grooves on either side. It was changed by making the blade a little thinner, about 3mm, and the handle was also made out of metal. The tang was wide and flat initially, and the grip was riveted through it, as well as through the shoulders of the blade.

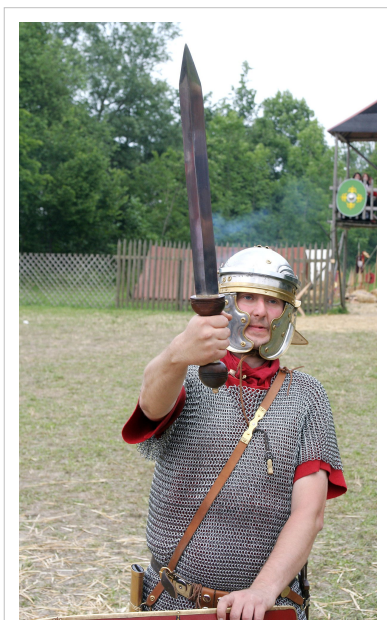
Around 50 AD, a rod tang was introduced, and the hilt was no longer riveted through the shoulders of the blade. This in itself caused no great change to the *pugio*'s appearance, but some of these later blades were narrower (under 3.5 cm wide), and/or had little or no waisting, and/or had reduced or vestigial midribs.

Throughout the period the outline of the hilt remained approximately the same. It was made with two layers of horn, wood or bone sandwiching the tang, each overlaid with a thin metal plate. Often the hilt was decorated with inlaid silver. Note that the hilt is 10–12 cm long overall and that the grip is quite narrow; which may make it seem to be too small but in fact this produced a very secure grip. An expansion or lump in the middle of the handle makes the user's grip even more secure.



Reconstruction of a *pugio*: a Roman soldier from a northern province.

Gladius



Re-enactor with Pompeii type gladius.

Gladius is the general Latin word for "sword". In the Roman Republic the term 'Gladius Hispaniensis' (Spanish Sword) referred (and refers today) specifically to the short sword, 60 cm (24 inches) long, used by Roman legionaries from the 3rd century BC. Several different better-known designs followed; among collectors and historical reenactors, the two primary kinds of swords are known as the Mainz gladius, and the Pompeii gladius which follows the Mainz type, which had itself followed the 'Hispaniensis' (these names refer to where or how the canonical example was found). More recent archaeological finds have confirmed the appearance of the earlier version, the *gladius hispaniensis* ("Spanish sword").

Spatha

A *spatha* could be any sword (in late Latin) but most often one of the longer swords characteristic of the middle and late Roman Empire. In the 1st century, Roman Cavalry started using these longer swords, and in the late 2nd or early 3rd century, Roman infantry also switched to longer swords, as well as mostly changing from carrying javelins to carrying spears.^{[5][6]}

Shorter weapons (short swords and possibly sometimes daggers) were known as *semispathae* or half-swords. A large 3rd-century hoard from Künzing included one triangular-bladed shortsword and several narrow-bladed short swords (with 23–39 cm blades). Bishop & Coulston suggest that some or all were made from broken *spathae*.^{[7][8]}

Spears & Javelins

Hasta

Hasta is a Latin word meaning a thrusting spear. *Hastae* were carried by early Roman Legionaries; in particular they were carried by and gave their name to those Roman soldiers known as Hastati. However, during Republican times, the hastati were re-armed with *pila* and *gladii* and only the Triarii still used *hastae*.

A hasta was about six feet in length with a shaft generally made from ash, the head was of iron.

Javelin

Although Romans often used the word *pila* to refer to all thrown javelins, the term *pilum* also means specifically the heavy Roman throwing javelin of the legions. Lighter, shorter javelins existed, such as those used by the velites and the early legions.

Pilum

The *pilum* (plural *pila*) was a heavy javelin commonly used by the Roman army in ancient times. It was generally about two metres long overall, consisting of an iron shank about 7 mm in diameter and 60 cm long with pyramidal head. The iron shank may be socketed or more usually widens to a flat tang, this was secured to a wooden shaft. A pilum usually weighed between two and four kilograms, with the versions produced during the Empire being a bit lighter.

Pila were designed to penetrate both shield and armour, wounding the wearer, but if they simply stuck in a shield they could not easily be removed. The iron shank would bend upon impact, weighing down the enemy's shield and also preventing the pilum from being immediately re-used. The shaft would also fall off on impact, leaving the enemy with a bent shank in their shield

Bow

The *sagittarius* was armed with the bow (*arcus*), shooting an arrow (*sagitta*) with a wooden shaft and iron head. The normal weapon of Roman archers was the classic composite bow,^[9] made of horn, wood, and sinew held together with hide glue. However, Vegetius recommends training recruits "arcubus ligneis", with wooden bows. The reinforcing laths for the composite bows are found throughout the empire.

Dart

Late infantrymen often carried half a dozen lead-weighted throwing-darts called *plumbatae* (from *plumbum* = "lead"), with an effective range of ca. 30 m, well beyond that of a javelin. The darts were carried clipped to the back of the shield.^[10]

Torso armor

Not all troops wore torso armour. Light infantry, especially in the early Republic, wore little or no armour. This was both to allow swifter movement for light troops and also as a matter of cost.

Legionary soldiers of the 1st and 2nd centuries used a variety of armour types. Some wore mail shirts, while others wore scale armour or *lorica segmentata* or laminated-strip cuirass. This last type was a complex piece of armour which in certain circumstances provided superior protection to the other types of Roman armour, mail armour (*lorica hamata*) and scale armour (*lorica squamata*). Testing of modern replicas have demonstrated that this kind of armour was impenetrable to most direct and missile strikes. It was, however, uncomfortable without padding: re-enactors have confirmed that wearing a padded undergarment known as a 'subarmalis' relieves the wearer from bruising both from prolonged wear and from shock produced by weapon blows against the armour. It was also expensive to produce and difficult to maintain.^[11] In the 3rd century, the *segmentata* appears to have been dropped and troops are depicted wearing mail armour (mainly) or scale, the standard armour of the 2nd century auxilia. The artistic record shows that most late soldiers wore metal armour, despite Vegetius' statement to the contrary. For example, illustrations in the *Notitia* show that the army's *fabricae* (arms factories) were producing mail armour at the end of the 4th century.^[12] Actual examples of both scale armour and quite large sections of mail have been recovered, at Trier and Weiler-La-Tour respectively, within 4th century contexts.^[13] Officers generally seem to have worn bronze or iron cuirasses, as in the days of the Principate, together with traditional *pteruges*.^[14]



scale armour

Lorica segmentata

The *lorica segmentata* was a type of kit primarily used in the Roman Empire, but the Latin name was first used in the 16th century (the ancient form is unknown). The armour itself consisted of broad ferrous (iron, but steel in modern recreations) strips ('girth hoops') fastened to internal leather straps. The strips were arranged horizontally on the body, overlapping downwards, and they surrounded the torso in two halves, being fastened at the front and back by means of brass hooks, which were joined by leather laces. The upper body and shoulders were protected by additional strips ('shoulder guards') and breast- and backplates. The form of the armour allowed it to be stored very compactly, since it was possible to separate it into four sections. During the time of its use, it was modified several times, the currently recognised types being the Kalkriese (c. 20 BC to 50), Corbridge (c. 40 to 120), and Newstead (c. 120 to possibly the early 4th-century) types. There is also a little-known fourth type, known only from a statue found at Alba Julia in Romania, where there appears to have been a hybrid form, the shoulders being protected by scale armour and the torso hoops being fewer in number and deeper.

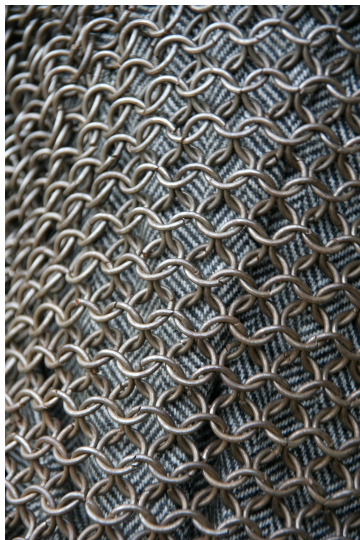


A reenactor dressed as a Roman soldier in *lorica segmentata*

The earliest evidence of the lorica segmentata being worn is around 9 BC (Dangstetten), and the armour was evidently quite common in service until the 2nd century AD, judging from the number of finds throughout this period (over 100 sites are known, many of them in Britain). However, even during the 2nd century AD, the segmentata never replaced the lorica hamata - thus the hamata mail was still standard issue for both heavy infantry and auxiliaries alike. Roman soldiers, however, bought their own gear and therefore a group of men would not present the sort of 'uniform' appearance we are used to today. The last recorded use of this armour seems to have been for the last quarter of the 3rd century AD (Leon, Spain).

There are two opinions as to who used this form of armour. One is that only legionaries (heavy infantry of the Roman Legions) and Praetorians were issued with the lorica segmentata. Auxiliary forces would more commonly wear the Lorica hamata (mail armour), or Lorica squamata (scale armour). The second viewpoint is that both legionaries and auxiliary soldiers used the segmentata armour and this latter view is supported, to some degree, by archeological findings. The Lorica segmentata offered greater protection than the Lorica hamata for about half of the weight, but was also more difficult to produce and repair. The expenses attributed to the segmentata may account for the reversion to ring-mail after the 3rd-4th century. Alternatively, all forms of armour may have fallen into disuse as the need for heavy infantry waned in favour of the speed of mounted troops.

Lorica hamata



Detail of mail. Replica from second century AD.

The *Lorica hamata* is a type of mail armour used during the Roman Republic continuing throughout the Roman Empire as a standard-issue armour for the primary heavy infantry legionaries and secondary troops (Auxilia). They were mostly manufactured out of iron, sometimes bronze. The rings were linked together, alternating closed washer-like rings with riveted rings. This produced a very flexible, reliable and strong armour. Each ring had an inside diameter of between 5 and 7 mm, and an outside diameter of about 7 to 9 mm. The shoulders of the *Lorica hamata* had flaps that were similar to those of the Greek 'Linothorax'; they ran from about mid-back to the front of the torso, and were connected by brass or iron hooks which connected to studs riveted through the ends of the flaps. Several thousand rings would have gone into one Lorica Hamata.

The manufacture of mail may have originated from the Celts.

Although labour-intensive to manufacture, it is thought that, with good maintenance, they could be continually used for several decades. Its utility was such that the later appearance of the famous Lorica Segmentata—which afforded greater protection for a third of the weight—never led to the disappearance of the ubiquitous mail, and in fact the army of the late Empire reverted to the Lorica Hamata once the Segmentata had fallen out of fashion.

Lorica squamata

The *Lorica squamata* is a type of scale armour used during the Republic and at later periods. It was made from small metal scales sewn to a fabric backing. It is typically seen on depictions of standard bearers, musicians, centurions, cavalry troops, and even auxiliary infantry, but could be worn by regular legionaries as well. A shirt of scale armour was shaped in the same way as a lorica hamata, mid-thigh length with the shoulder doublings or cape.

The individual scales (*squamae*) were either iron or bronze, or even alternating metals on the same shirt. They could be tinned as well, one surviving fragment showing bronze scales that were alternately tinned and plain. The metal was generally not very thick, 0.5 mm to 0.8 mm (0.02 to 0.032 in) perhaps being a common range. Since the scales overlapped in every direction, however, the multiple layers gave good protection. The size ranged from as small as 6 mm (0.25 in) wide by 1.2 cm tall up to about 5 cm (2 in) wide by 8 cm (3 in) tall, with the most common sizes being roughly 1.25 by 2.5 cm (0.5 by 1 in). Many have rounded bottoms, while others are pointed or have flat bottoms with the corners clipped off at an angle. The scales could be flat, or slightly domed, or have a raised midrib or edge. All the scales in a shirt would generally be of the same size; however, scales from different shirts may vary significantly.

The scales were wired together in horizontal rows that were then laced or sewn to the backing. Therefore, each scale had from four to 12 holes: two or more at each side for wiring to the next in the row, one or two at the top for fastening to the backing, and sometimes one or two at the bottom to secure the scales to the backing or to each other.

It is possible that the shirt could be opened either at the back or down one side so that it was easier to put on, the opening being closed by ties. Much has been written about scale armour's supposed vulnerability to an upward thrust, but this is probably greatly exaggerated.

No examples of an entire lorica squamata have been found, but there have been several archaeological finds of fragments of such shirts and individual scales are quite common finds - even in non-military contexts.



Roman scale armour fragment.



Detail of a fragment. Each plate has six holes and the scales are linked in rows. Only the "lower most" holes are visible on most scales, while a few show the pair above and the ring fastener passing through them.

Limb armour

Manica

From early Imperial times to after the fall of the Western Empire, some troops wore segmented armour on one or both arms.

Greave

Greaves, sheet metal protecting the legs, were widely used in the late Republic, and by some troops in the Imperial army.

Shields

Parma

It was a yard across (or less) and had iron in its frame, making it a very effective piece of armor. Parma had a handle and a shield boss (umbo).

The Parma was used by legionaries in the Early Republican period of Rome's history by the lowest class division of the army—the Velites. The Velites armor consisted of a parma, javelin, sword and helmet. Later, the parma was replaced by the scutum.

The parma was very effective in the act of blocking arrows; this made it a favorite, for the time, of the Roman infantry.

Cetratus

A light shield used by Roman auxiliaries.

Helmets

Roman helmets, *galea* or *cassis*, varied greatly in form. One of the earliest types was the Montefortino helmet used by the Republic armies up to the 1st century BC. This was replaced directly by the Coolus helmet, which "raised the neck peak to eye level and set a sturdy frontal peak to the brow of the helmet".^[15]

Clothing

- Tunic: basic garment worn under the armour by all soldiers in the Republic and early Empire. Normally made of wool. Tunics originally consisted simply of a piece of rectangular cloth sewed to an identical piece, with holes for the arms and head left unsewn. Later, it became fashionable for tunics to be produced with sleeves, and worn with braccæ.
- Focale: scarf worn by Roman legionaries to protect the neck from chafing caused by constant contact with the soldier's armor (typically lorica hamata or lorica segmentata) and helmet.
- Balteus (sword belt): sword belt.
- Braccæ: woolen trousers.



Cavalry parade helmet, latter half of the 2nd century AD, from the German *limes*.

- *Subligaria*: underpants. Their existence was confirmed by one of the Vindolanda tablets.
- Cloak: two types of cloaks were used, the sagum and the paenula. Both were made from wool, which insulated and also contained natural oil to repel water. It was fastened by fibulae. The paenula was hooded in colder climates.
- Caliga: military boots worn by Roman legionaries and auxiliaries throughout the history of the Roman Republic and Empire. The boots were made from leather and laced up the center of the foot and onto the top of the ankle. Iron hobnails were hammered into the sole for added strength. Similar to the modern cleat.
- Pteruges: skirt of leather or fabric strips that is worn around the waist to protect the upper legs. Pteruges could be fitted with small metal studs and plates to provide additional protection.

Sarcina

Military pack carried by legionaries. The pack included a number of items suspended from a furca or carrying pole. Items carried in the pack include:

- Loculus: a leather satchel.
- Water skin: Roman camps would typically be built near water sources, but each soldier would have to carry his water for the day's march in a waterskin.
- Food: Each legionary would carry some of his food. Although a Roman army on the move would typically have a baggage train of mules or similar to carry supplies such as food, after the Marian reforms legionaries were required to carry about 15 days worth of basic food supplies with them. Most basic foot soldiers had to carry the food in a sarcina or pack.
- Cooking equipment: Including a patera (mess tin), cooking pot and skewer. A patera was a broad, shallow dish used for drinking, primarily in a ritual context such as a libation.
- Entrenching tools: Carried by legionaries to construct fortifications and dig latrines etc. Each legionary would typically carry either a shovel or dolabra (mattock) for digging, a turf cutting tool or a wicker basket for hauling earth.
- Sudis: Stakes for construction of camps.



Marching packs of two soldiers illustrated on Trajan's Column showing loculus, cloak bag, patera, cooking pot and "netted object".

Other

Ballista

The ballista was a powerful ancient crossbow, powered by torsion in bundles of sinew, rather than torsion in the arms. Early versions ejected heavy darts called bolts, or spherical stone projectiles of various sizes.

Catapult

A catapult is any siege engine which uses an arm to hurl a projectile. The Roman version was called an onager. Projectiles included both arrows and (later) stones.



Flags

Buccina

A brass instrument used in the ancient Roman army. It was originally designed as a tube measuring some 11 to 12 feet in length, of narrow cylindrical bore, and played by means of a cup-shaped mouthpiece. The tube is bent round upon itself from the mouthpiece to the bell in the shape of a broad C and is strengthened by means of a bar across the curve, which the performer grasps while playing, in order to steady the instrument; the curves over his head or shoulder.

The buccina was used for the announcement of night watches and various other purposes in the camp.

The instrument is the ancestor of both the trumpet and the trombone. The German word for trombone, Posaune, is derived from Buccina.



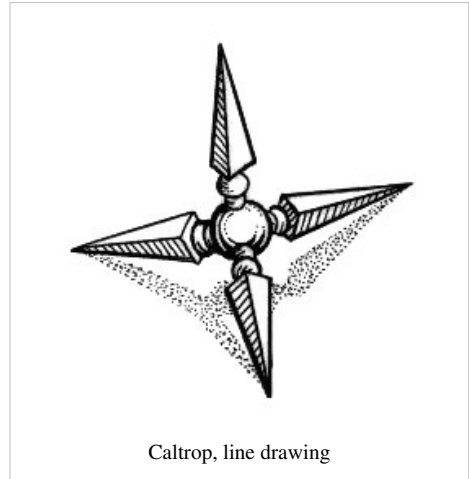
buccina

Tribulus

A **tribulus** (caltrop) is a weapon made up of four sharp nails or spines arranged in such a manner that one of them always points upward from a stable base (for example, a tetrahedron). Caltrops serve to slow down the advance of horses, war elephants, and human troops. It was said to be particularly effective against the soft feet of camels.^[16]

The late Roman writer Vegetius, in his work *De Re Militari*, wrote:

The scythed chariots used in war by Antiochus and Mithridates at first terrified the Romans, but they afterwards made a jest of them. As a chariot of this sort does not always meet with plain and level ground, the least obstruction stops it. And if one of the horses be either killed or wounded, it falls into the enemy's hands. The Roman soldiers rendered them useless chiefly by the following contrivance: at the instant the engagement began, they strewed the field of battle with caltrops, and the horses that drew the chariots, running full speed on them, were infallibly destroyed. A caltrop is a machine composed of four spikes or points arranged so that in whatever manner it is thrown on the ground, it rests on three and presents the fourth upright.^[17]



Caltrop, line drawing

External links

- For images of authentic Roman military equipment see <http://www.romancoins.info/MilitaryEquipment.html>

Notes

- [1] Elton, Hugh, 1996, *Warfare in Roman Europe, AD 350-425*, p. 110
- [2] In Luttwak, E., *The Grand Strategy of the Roman Empire*, JHUP, 1979, Luttwak states that "Roman weapons, far from being universally more advanced, were frequently inferior to those used by... enemies"
- [3] Book 2 Chapter 15. The nominative singular of the weapon has been placed in parentheses.
- [4] Stephenson, I.P., 2001, *Roman Infantry Equipment: The Later Empire*, p. 56
- [5] Stephenson, I.P., 2001, *Roman Infantry Equipment: The Later Empire*, Tempus, pp. 58 & 60-75.
- [6] M.C. Bishop & J.C.N. Coulston, 2006, *Roman Military Equipment: From the Punic Wars to the Fall of Rome*, Oxbow Books, pp. 82-83, 130, 154-157 & 202.
- [7] Stephenson, I.P., 2001, *Roman Infantry Equipment: The Later Empire*, Tempus, p. 79.
- [8] M.C. Bishop & J.C.N. Coulston, 2006, *Roman Military Equipment: From the Punic Wars to the Fall of Rome*, Oxbow Books, p. 157.
- [9] Roman Military Equipment from the Punic Wars to the Fall of Rome (Paperback). M.C. Bishop, J.C. Coulston. Oxbow Books 2005. ISBN 1-84217-159-3 ISBN 978-1842171592
- [10] Goldsworthy (2000) 167; (2003) 205
- [11] Goldsworthy (2003) 129
- [12] *Notitia Oriens*.XI
- [13] Bishop and Coulston (2006) 208
- [14] Elton (1996) 111
- [15] Santosuosso, A., *Soldiers, Emperors and Civilians in the Roman Empire*, Westview, 2001, p.131
- [16] Rawlinson, George. *The Seven Great Monarchies Of The Ancient Eastern World, Vol 6. (of 7): Parthia* (<http://www.gutenberg.org/files/16166/16166-h/16166-h.htm#2HCH0023>). .
- [17] "ARMED CHARIOTS AND ELEPHANTS" (<http://www.pvv.ntnu.no/~madsb/home/war/vegetius/dere07.php#21>). *The Military Institutions of the Romans Book III: Dispositions for Action*. .

References

- Ammianus Marcellinus, *Roman History* (http://www.tertullian.org/fathers/index.htm#Ammianus_Marcellinus) (late 4th c.)
- Goldsworthy, Adrian (2003). *Complete Roman Army*.

Roman military decorations and punishments

As with most other military forces the **Roman military** adopted an extensive list of **decorations** for military gallantry and likewise a range of **punishments** for military transgressions.

Decorations, awards and victory titles

Qualifications

- Military diploma - a notarized copy of an original bronze constitution issued by the emperor in Rome, granting Roman citizenship to foreign veterans who had served for 25 years or more in the Roman auxiliary forces or Praetorian Fleets.

Crowns

- Grass Crown - (Latin: *corona obsidionalis* or *corona graminea*), was the highest and rarest of all military decorations. It was presented only to a general or commander who broke the blockade of a beleaguered Roman Army.
- Civic Crown - (Latin: *corona civica*), was a chaplet of common oak leaves woven to form a crown. During the Roman Republic, and the subsequent Principate, it was regarded as the second highest military decoration a citizen could aspire to (the Grass Crown being held in higher regard).
- Naval crown - (Latin: *corona navalis*), was a gold crown awarded to the first man who boarded an enemy ship during a naval engagement. In style, the crown was made of gold and surmounted with the beaks of ships.
- Gold Crown - (Latin: *corona aurea*), Awarded to both Centurions and apparently some principales, for killing an enemy in single combat and holding the ground to the end of the battle.
- Battlement Crowns - These were made of gold and decorated with the uprights (valli) of an entrenchment or turrets of a city. It was awarded to the first soldier or Centurion to mount the wall or palisade of an enemy town or camp.^[1]
 - Mural Crown - (Latin: *corona muralis*), Also referred to as the "walled crown", this was a golden crown, or circle of gold intended to resemble a battlement, bestowed upon the first soldier who climbed the wall of a besieged city and to successfully place the standard of the attacking army upon it.
 - Camp Crown - (Latin: *corona vallaris* or *corona castrensis*), A golden crown which was ornamented with the palisades used in forming an entrenchment.
- Crown of the Preserver - awarded to "*those who have shielded and saved any of the citizens or allies*"^[2] - Polybius relates that the crown is presented by those civilians the soldier saved and adds that "*the man thus preserved also reverences his preserver as a father all through his life, and must treat him in every way like a parent.*"^[3]

Imperial Titles

Synonyms for Emperor

- Augustus (also "Αὔγουστος" or "Σεβαστός"), "Majestic" or "Venerable"; an honorific cognomen exclusive to the emperor
 - Αὐτοκράτωρ, (lit. "Self-ruler"); Greek title equivalent to imperator i.e. Commander-in-Chief
 - Βασιλεύς (*Basileus*), Greek title meaning sovereign, popularly used in the east to refer to the emperor; a formal title of the Roman emperor beginning with Heraclius
- Caesar (also "Καίσαρ" or "Nobilissimus Caesar"), "Caesar" or "Most Noble Caesar"; an honorific name later used to identify an Emperor-designate
- Censor, a Republican office with a five year term and one coequal officeholder
- Consul, the highest magistracy of the Roman republic with a one year term and one coequal officeholder
- Dominus, "Lord" or "Master"; an honorific title popular in the Empire's middle history
- Imperator, "Commander" or "Commander-in-Chief"; a victory title taken on accession to the purple and after a major military victory; the praenomen of most Roman emperors
- Imperator Destinatus, "Destined to be Emperor"; heir apparent, used by Septimius Severus for Caracalla.
- *Imperium maius*, "greater *imperium*"; absolute power to a degree greater than any other, including power of enacting capital punishment
- Invictus, "Unconquered"; an honorific title
- Pater Patriae, "Father of the Fatherland"; an honorific title
- Pius Felix, "Pious and Blessed" (lit. "Dutiful and Happy"); an honorific title
- Pontifex Maximus, "Supreme Pontiff" or "Chief Priest" (lit. "Greatest Bridgemaker"); a title and office of Republican origin - could not be used by Christian Emperors, while by that time only the pope had a claim on the title of highest religious authority.
- Princeps, "First Citizen" or "Leading Citizen"; an honorific title denoting the status of the emperor as first among equals
- Princeps Iuventatis, "Prince of Youth"; an honorific title awarded to a presumptive Emperor-designate
- Princeps Senatus, "First Man of the Senate" a Republican office with a five year term
- *Tribunicia potestas*, "tribunician power"; the powers of a tribune of the people including sacrosanctity and the veto

Victory Titles

Victory titles were treated as Latin *cognomina* and were usually the name of the enemy defeated by the commander. Hence, names like Africanus ("the African"), Numidicus ("the Numidian"), Isauricus ("the Isaurian"), Creticus ("the Cretan"), Gothicus ("the Goth"), Germanicus ("the German") and Parthicus ("the Parthian"), seemingly out of place for ardently patriotic Romans, are in fact expressions of Roman superiority over these peoples. The most famous grantee of Republican victory title was of course Publius Cornelius Scipio, who for his great victories in the Second Punic War was awarded by the Roman Senate the title "Africanus" and is thus known to history as "Scipio Africanus".

The practice continued in the Roman Empire, although it was subsequently amended by some Roman Emperors who desired to emphasise the totality of their victories by adding Maximus ("the Greatest") to the victory title (e.g., Parthicus Maximus, "the Greatest Parthian").

Decorations (Medal Equivalents)

Polybius writes that "*After a battle in which some of them have distinguished themselves, the general calls an assembly of the troops, and bringing forward those whom he considers to have displayed conspicuous valour, first of all speaks in laudatory terms of the courageous deeds of each and of anything else in their previous conduct which deserves commendation*".^[4] Only after this are the military decorations presented:

- *Torc* - gold necklet
- *armillae* - gold armbands
- *phalerae* - gold, silver, or bronze sculpted disks worn on the breastplate during parades
- *hasta pura* or Arrow without a Head- a ceremonial silver spear awarded to "*the man who has wounded an enemy*".^[5] The use of this decoration is not clear.^[6]
- a small silver replica of a standard or flag (the vexillum).
- a cup - presented to an infantryman "*who has slain and stripped an enemy*"^[7] not in the normal melee of battle but voluntarily in single combat after throwing themselves into danger
- "horse trappings" - presented to a cavalryman "*who has slain and stripped an enemy*"^[8] not in the normal melee of battle but voluntarily in single combat after throwing themselves into danger

Financial awards

- monetary bonuses
- part of the booty and spoils after a conquest including slaves

Service awards

- *missio honesta* - honorable discharge

Imperial Parades

- Ovation - a less-honored form of the Roman triumph. Ovations were granted, when war was not declared between enemies on the level of states, when an enemy was considered basely inferior (slaves, pirates), and when the general conflict was resolved with little to no bloodshed or danger to the army itself.
- Triumph - a civil ceremony and religious rite of ancient Rome, held to publicly honour the military commander (dux) of a notably successful foreign war or campaign and to display the glories of Roman victory.

Punishments

When the Roman soldier enrolled in service to the state, he swore a military oath known as the *sacramentum*: originally to the Senate and Roman People, later to the general and the emperor. The *sacramentum* stated that he would fulfill his conditions of service on pain of punishment up to and inclusive of death. Discipline in the army was extremely rigorous by modern standards, and the general had the power to summarily execute any soldier under his command.

Polybius divides the punishments inflicted by a commander on one or more troops into punishments for military crimes, and punishments for "unmanly acts", although there seems to be little difference in the harsh nature of the punishment between the two classes.

Punishments for crimes

- *Fustuarium* or *bastinado* — Following a court-martial sentence for desertion or dereliction of duty, the soldier would be stoned, or beaten to death by cudgels, in front of the assembled troops, by his fellow soldiers, whose lives had been put in danger. Soldiers under sentence of *fustuarium* who escaped were not pursued, but lived under sentence of banishment from Rome.^[9] Polybius writes that the *fustuarium* is "*also inflicted on those who steal anything from the camp; on those who give false evidence; on young men who have abused their persons; and finally on anyone who has been punished thrice for the same fault.*"
- *Pecunaria multa* - fines or deductions from the pay allowance.
- Flogging in front of the century, cohort or legion.
- "demanding sureties", including the re-taking of the military oath known as the sacramentum.
- For treason or theft, the punishment would most probably be being placed in a sack of snakes and thrown into a nearby river or lake.

Another punishment in the Roman Military only applied to people involved in the prison system; this rule was that if a prisoner died due to the punishment inflicted by Roman legionnaires, unless he was given the death penalty, then the leader of the troops would be given the same punishment.

It would seem that in the later Empire independent commanders were given considerable latitude in the crimes they chose to punish and the penalties they inflicted. According to the *Historia Augusta*^[10] the future Emperor Aurelian once ordered a man who was convicted of raping the wife of the man on whom he had been billeted to be attached to two trees drawn together so that when the restraining ropes were cut, they sprang apart and the unfortunate victim was torn asunder. The author of the *Vita Aureliani* comments that Aurelian rarely punished twice for the same offence. However, even by Roman standards his justice was considered particularly harsh. As always with the *Historia Augusta*, one takes this story with a pinch of salt and either wonders what fourth century point the author was attempting to make of a third century incident or whether he merely attributed to Aurelian a good story that seemed appropriate to that man's reputation. On the other hand, the imposition of cruel and unusual penalties to maintain discipline among the brutalised soldiery in the chaotic conditions of the north European provinces in the mid-third century was a necessity for the maintenance of effective command.^[11]

Punishments for "unmanly acts"

- *Decimatio* - a form of extreme military discipline used by officers in the Roman Army to punish mutinous or cowardly soldiers in exceptional cases. A cohort selected for punishment by decimation was divided into groups of ten; each group cast lots, and the soldier on whom the lot fell was executed by his nine comrades, often by stoning or clubbing. The remaining soldiers were given rations of barley instead of wheat and forced to sleep outside of the Roman encampment. This punishment was forgotten over time since the early Republic, but the ancient punishment was resurrected by Marcus Crassus during the Spartacus gladiator rebellion in 72 BC, when two of his legions disobeyed his direct orders not to engage the enemy. As a result they suffered a terrible defeat. Crassus's response to the disobedience was brutal. He assembled the two legions and pulled out every 10th man as he walked across the ranks. Each man who was pulled out was to be beaten to death by his preceding nine comrades. Some scholars say that Julius Caesar joined these two legions to form his legendary "Legio X Equitata"
- *Castigatio* - being hit by the centurion with his staff or *animadversio fustium*
- **Reduction of rations**, or to be forced to eat barley instead of the usual grain ration
- Whipping with the *flagrum* (*flagellum*, *flagella*), or "short whip" — a much more brutal punishment than simple flogging. The "short whip" was used for slave volunteers, *volones*.
- *gradus deiectio* - a reduction in rank
- *missio ignominiosa* - a dishonorable discharge
- Loss of advantages gained from length of service.
- *militiae mutatio* - relegation to inferior service or duties.

- Summary execution.
- *munerum indictio* - additional duties

Notes

[1] Polybius, The Histories, Volume III, Chapter 39

[2] Polybius, The Histories, Volume III, Chapter 39

[3] Polybius, The Histories, Volume III, Chapter 39

[4] Polybius, The Histories, Volume III, Chapter 39

[5] Polybius, The Histories, Volume III, Chapter 39

[6] There are sources that call it a civilian award. See the main article.

[7] Polybius, The Histories, Volume III, Chapter 39

[8] Polybius, The Histories, Volume III, Chapter 39

[9] Polybius, The Histories, Volume III, Chapter 37

[10] Vita Aureliani, VII:4; Loeb Edition, 1932.

[11] It is interesting that the soldier in question was a billetee - i.e. not living in one of the Roman Army's permanent cantonements. This suggests that his unit was on detached service - always a recipe for relaxed discipline and undesirable interaction with the civilian population.

Military of ancient Rome

The Roman military was intertwined with the Roman state much more closely than in a modern European nation. Josephus describes the Roman people being as if they were "born ready armed."^[1] and the Romans were for long periods prepared to engage in almost continuous warfare, absorbing massive losses. For a large part of Rome's history, the Roman state existed as an entity almost solely to support and finance the Roman military.

The military's campaign history stretched over 1300 years and saw Roman armies campaigning as far East as *Parthia* (modern-day Iran), as far south as *Africa* (modern-day Tunisia) and *Aegyptus* (modern-day Egypt) and as far north as *Britannia* (modern-day England, Scotland, and Northeast Wales). The makeup of the Roman military changed substantially over its history, from its early history as an unsalaried citizen militia to a later professional force. The equipment used by the military altered greatly in type over time, though there were very few technological improvements in weapons manufacture, in common with the rest of the classical world. For much of its history, the vast majority of Rome's forces were maintained at or beyond the limits of its territory, in order to either expand Rome's domain, or protect its existing borders.

Personnel

At its territorial height, the Roman Empire may have contained between 45 million and 120 million people.^[2] Historian Edward Gibbon estimated that the size of the Roman army "most probably formed a standing force of 3,750,000" men at the Empire's territorial peak in the time of the Roman Emperor Hadrian. This estimate probably included only legionary and auxiliary troops of the Roman army.^[3] However, Gibbon states that it is "not... easy to define the size of the Roman military with any tolerable accuracy." In the late Imperial period, when vast numbers of foederati were employed by the Romans, Antonio Santosuosso estimated the combined number of men in arms of the two Roman empires numbered closer to 700,000 in total (not all members of a standing army), drawing on data from the *Notitia Dignitatum*. However, he notes that these figures were probably subject to inflation due to the practice of leaving dead soldiers "on the books" in order to continue to draw their wage and ration. Furthermore, it is irrespective of whether the troops were raised by the Romans or simply hired by them to fight on their behalf.^[4]



Roman soldiers on the cast of Trajan's Column in the Victoria and Albert museum, London.

There is no archaeological evidence that suggests that women constituted a significant proportion of troops even amongst the federated troops of the late empire. For the majority of its history, the Roman army was open to male recruits only, and for a greater part of that history only those classified as Roman citizens (as opposed to allies, provincials, freedmen and slaves) were eligible for military service as legionaires, though a great deal of non-citizens could join as auxiliaries, and perhaps earn citizenship in return.

Initially, Rome's military consisted of an annual citizen levy performing military service as part of their duty to the state. During this period, the Roman army would prosecute seasonal campaigns against largely local adversaries. As the extent of the territories falling under Roman suzerainty expanded, and the size of the city's forces increased, the soldiery of ancient Rome became increasingly professional and salaried. As a consequence, military service at the lower (non-staff) levels became progressively longer-term. Roman military units of the period were largely homogeneous and highly regulated. The army consisted of units of citizen infantry known as legions (Latin: *legiones*) as well as non-legionary allied troops known as *auxilia*. The latter were most commonly called upon to provide light infantry or cavalry support.

Military service in the later empire continued to be salaried and professional for Rome's regular troops. However, the trend of employing allied or mercenary troops was expanded such that these troops came to represent a substantial proportion of Rome's forces. At the same time, the uniformity of structure found in Rome's earlier military forces disappeared. Soldiery of the era ranged from lightly armed mounted archers to heavy infantry, in regiments of varying size and quality. This was accompanied by a trend in the late empire of an increasing predominance of cavalry rather than infantry troops, as well as a requital of more mobile operations.

Military Culture

Historian Peter Heather describes Roman military culture as being "just like the marines, but much nastier".^[5] In the legions of the Republic, discipline was fierce and training harsh, all intended to instill a group cohesion or *esprit de corps* that could bind the men together into effective fighting units. Unlike opponents such as the Gauls, who were fierce individual warriors, Roman military training concentrated on instilling teamwork and maintaining a level head over individual bravery - troops were to maintain exact formations in battle and "despise wild swinging blows"^[6] in favor of sheltering behind one's shield and delivering efficient stabs when an opponent made himself vulnerable.

Loyalty was to the Roman state but pride was based in the soldier's unit, to which was attached a military standard - in the case of the legions a legionary eagle. Successful units were awarded with accolades that became part of their official name, such as the 20th legion, which became the *XX Valeria Victrix* (the "Valiant and Victorious 20th").

Of the martial culture of less valued units such as sailors, and light infantry, less is known, but it is doubtful that its training was as intense or its *esprit de corps* as strong as in the legions.

Funding and expenditures

Although early in its history troops were expected to provide much of their own equipment, eventually the Roman military was almost entirely funded by the state. Since soldiers of the early Republican armies were also unpaid citizens, the financial burden of the army on the state was minimal. However, since the Roman state did not provide services such as housing, health, education, social security and public transport that are part and parcel of modern states, the military always represented by far the greatest expenditure of the state.^[7]



Roman coins grew gradually more debased due to the demands placed on the treasury of the Roman state by the military

During the time of expansion in the Republic and early Empire, Roman armies had acted as a source of revenue for the Roman state, plundering conquered territories, displaying the massive wealth in triumphs upon their return and fueling the economy^[8] to the extent that historians such as Toynbee and Burke believe that the Roman economy was essentially a plunder economy. However, after the Empire had stopped expanding in the 2nd century, this source of revenue dried up; by the end of the 3rd century, Rome had "ceased to vanquish."^[9] As tax revenue was plagued by corruption and hyperinflation during the Crisis of the Third Century, military expenditures began to become a "crushing burden"^[10] on the finances of the Roman state.^[11] It now highlighted weaknesses that earlier expansion had disguised. By 440, an imperial law frankly states that the Roman state has insufficient tax revenue to fund an army of a size required by the demands placed upon it.^[12]

Several additional factors bloated the military expenditure of the Roman Empire. Firstly, substantial rewards were paid for the demeanor of "barbarian" chieftains in the form of negotiated subsidies and for the provision of allied troops.^[13] Secondly, the military boosted its numbers, possibly by one third in a single century.^[7] Finally, the military increasingly relied on a higher ratio of cavalry units in the late Empire, which were many times more expensive to maintain than infantry units.^[14]

While military size and costs increased, new taxes were introduced or existing tax laws reformed in the late Empire in order to finance it frequently. Although more inhabitants were available within the borders of the late Empire, reducing the per capita costs for an increased standing army was impractical. A large number of the population could not be taxed because they were slaves or held Roman citizenship, which exempted them from taxation in one way or another.^[15] Of the remaining, a large number were already impoverished by centuries of warfare and weakened by

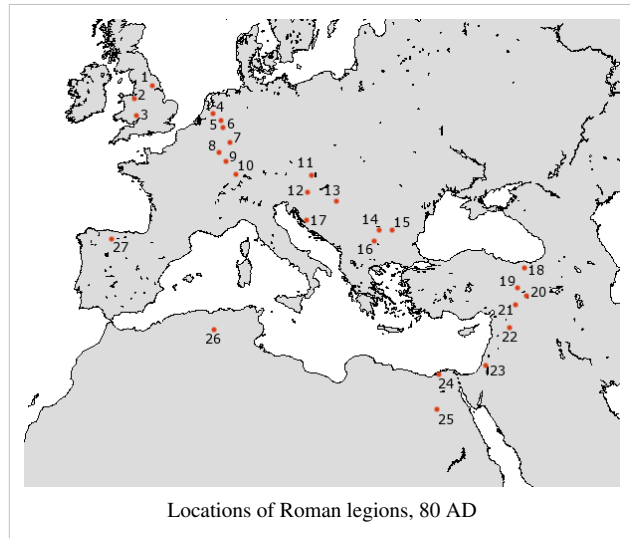
chronic malnutrition. Still, they had to handle an increasing tax rate^[16] and so they often abandoned their lands to survive in a city.^[17]

Of the Western Empire's taxable population, a larger number than in the East could not be taxed because they were "primitive subsistence peasant[s]"^[17] and did not produce a great deal of goods beyond agricultural products. Plunder was still made from suppressing insurgencies within the Empire and on limited incursions into enemy land. Legally, much of it should have returned to the Imperial purse, but these goods were simply kept by the common soldiers, who demanded it of their commanders as a right. Given the low wages and high inflation in the later Empire, the soldiers felt that they had a right to acquire plunder.^{[18][19]}

Capabilities

Readiness and Disposition

The military capability of Ancient Rome – its military preparedness or readiness – was always primarily based upon the maintenance of an active fighting force acting either at or beyond its military frontiers, something that historian Luttwak refers to as a "thin linear perimeter."^[20] This is best illustrated by showing the dispositions of the Roman legions, the backbone of the Roman army. (see right). Because of these deployments, the Roman military did not keep a central strategic reserve after the Social War. Such reserves were only re-established during the late Empire, when the army was split into a border defense force and mobile response field units.



Power projection

The Roman military was keen on the doctrine of power projection – it frequently removed foreign rulers by force or intimidation and replaced them with puppets. This was facilitated by the maintenance, for at least part of its history, of a series of client states and other subjugate and buffer entities beyond its official borders, although over which Rome extended massive political and military control. On the other hand, this also could mean the payment of immense subsidies to foreign powers^[13] and opened the possibility of extortion in case military means were insufficient.

Sustainability

The Empire's system of building an extensive and well-maintained road network, as well as its absolute command of the Mediterranean for much of its history, enabled a primitive form of rapid reaction, also stressed in modern military doctrine, although because there was no real strategic reserve, this often entailed the raising of fresh troops or the withdrawing of troops from other parts of the border. However, border troops were usually very capable of handling enemies before they could penetrate far into the Roman hinterland.

The Roman military had an extensive logistical supply chain. There was no specialised branch of the military devoted to logistics and transportation, although this was to a great extent carried out by the Roman Navy due to the ease and low costs of transporting goods via sea and river compared to over land.^[21] There is archaeological evidence that Roman armies campaigning in Germania were supplied by a logistical supply chain beginning in Italy

and Gaul, then transported by sea to the northern coast of Germania, and finally penetrating into Germania via barges on inland waterways. Forces were routinely supplied via fixed supply chains, and although Roman armies in enemy territory would often supplement or replace this with foraging for food or purchasing food locally, this was often insufficient for their needs: Heather states that a single legion would have required 13.5 tonnes of food per month, and that it would have proved impossible to source this locally.^[22]

Policing

For the most part, Roman cities had a civil guard used for maintaining the peace. Due to fears over rebellions and other uprisings, they were forbidden to be armed up to militia levels. Policing was split between the civil guard for low-level affairs and the Roman legions and auxilia for suppressing higher-level rioting and rebellion. This created a limited strategic reserve, one that fared poorly in actual warfare.

Engineering

The military engineering of Ancient Rome's armed forces was of a scale and frequency far beyond that of any of its contemporaries. Indeed, military engineering was in many ways institutionally endemic in Roman military culture, as demonstrated by the fact that each Roman legionary had as part of his equipment a shovel, alongside his *gladius* (sword) and *pila* (spears). Heather writes that "Learning to build, and build quickly, was a standard element of training".^[23]

This engineering prowess was, however, only evident during the peak of Roman military prowess under the mid-Republic to the mid-Empire. Prior to the mid-Republic period there is little evidence of protracted or exceptional military engineering, and in the late Empire likewise there is little sign of the kind of engineering feats that were regularly carried out in the earlier Empire.

Roman military engineering took both routine and extraordinary forms, the former a proactive part of standard military procedure, and the latter of an extraordinary or reactionary nature. Proactive military engineering took the form of the regular construction of fortified camps, in road-building, and in the construction of siege engines. The knowledge and experience learned through such routine engineering lent itself readily to any extraordinary engineering projects required by the army, such as the circumvallations constructed at Alesia and the earthen ramp constructed at Masada.

This engineering expertise practiced in daily routines also served in the construction of siege equipment such as ballistae, onagers and siege towers, as well as allowing the troops to construct roads, bridges and fortified camps. All of these led to strategic capabilities, allowing Roman troops to, respectively, assault besieged settlements, move more rapidly to wherever they were needed, cross rivers to reduce march times and surprise enemies, and to camp in relative security even in enemy territory.



The massive earthen ramp at Masada, designed by the Roman army to breach the fortress' walls

International stance

Rome was established as a nation making aggressive use of its high military potential. From very early on in its history it would raise two armies annually to campaign abroad. Far from the Roman military being solely a defence force, for much of its history, it was a tool of aggressive expansion. Notably, the Roman army had derived from a militia of mainly farmers, and gaining new farming lands for the growing population or later retiring soldiers was often one of the campaigns' chief objectives. Only in the late Empire did the Roman military's primary role become the preservation of control over its territories. Remaining major powers next to Rome were the Kingdom of Aksum, Parthia and the Hunnic Empire. Knowledge of China, the Han Dynasty at the times of Mani, existed and it is believed that Rome and China swapped embassies in about 170.^[24]

Grand strategy

In its purest form, the concept of strategy deals solely with military issues. However, Rome is offered by Edward Luttwak and others as an early example of a state that possessed a grand strategy which encompassed the management of the resources of an entire nation in the conduct of warfare. Up to half of the funds raised by the Roman state were spent on its military, and the Romans operated a system of grand strategy that was clearly more complicated than simple knee-jerk strategic or tactical responses to individual threats. Rome's grand strategy changed over time, implementing different systems to meet different challenges and reflecting changing internal priorities, but elements of Rome's grand strategy included client states, the deterrent of armed response in parallel with manipulative diplomacy, and a fixed system of troop deployments and road networks. Luttwak states that there are "instructive similarities" between Roman and modern military strategy.^[25]

Campaigns

Initially, Rome's military consisted of an annual citizen levy performing military service as part of their duty to the state. During this period, the Roman army would prosecute seasonal campaigns against its tribal neighbours and Etruscan towns within Italy. As the extent of the territories falling under Roman suzerainty expanded, and the size of the city's forces increased, the soldiery of ancient Rome became increasingly professional and salaried. As a consequence, military service at the lower (non-staff) levels became progressively longer-term. Roman military units of the period were largely homogeneous and highly regulated. The army consisted of units of citizen infantry known as legions (Latin: *legiones*) as well as non-legionary allied troops known as *auxilia*. The latter were most commonly called upon to provide light infantry or cavalry support.



Rape of the Sabine Women, by Nicolas Poussin, Rome, 1637-38
(Louvre Museum)

Rome's forces came to dominate much of the Mediterranean and further afield, including the provinces of Britannia and Asia at the Empire's height. They were tasked with manning and securing the borders of the provinces brought under Roman control, as well as Italy itself. Strategic-scale threats were generally less serious in this period, and strategic emphasis was placed on preserving gained territory. The army underwent changes in response to these new needs and became more dependent on fixed garrisons than on march-camps and continuous field operations. In the late Empire, military service continued to be salaried and professional for Rome's regular troops. However, the trend of employing allied or mercenary troops was expanded such that these troops came to represent a substantial

proportion of Rome's forces. At the same time, the uniformity of structure found in Rome's earlier military forces disappeared. Soldiery of the era ranged from lightly armed mounted archers to heavy infantry, in regiments of varying size and quality. This was accompanied by a trend in the late empire of an increasing predominance of cavalry rather than infantry troops, as well as a requital of more mobile operations.

Equipment

Although Roman iron-working was enhanced by a process known as carburization, the Romans are not thought to have developed true steel production. From the earliest history of the Roman state to its downfall, Roman arms were therefore uniformly produced from either bronze or, later, iron. As a result the 1300 years of Roman military technology saw little radical change in technological level. Within the bounds of classical military technology, however, Roman arms and armor was developed, discarded, and adopted from other peoples based on changing methods of engagement. It included at various times stabbing daggers and swords, stabbing or thrusting swords, long thrusting spears or pikes, lances, light throwing javelins and darts, slings, and bow and arrows^[26].



Roman ballista

Roman military personal equipment was produced in large numbers to established patterns and used in an established way. It therefore varied little in design and quality within each historical period. According to Hugh Elton, Roman equipment^[27] (especially armor) gave them "a distinct advantage over their barbarian enemies." ^[28] who were often, as Germanic tribesmen, completely unarmoured. However, Luttwak points out that whilst the uniform possession of armour gave Rome an advantage, the actual standard of each item of Roman equipment was of no better quality than that used by the majority of its adversaries.^[29] The relatively low quality of Roman weaponry was primarily a function of its large-scale production, and later factors such as governmental price fixing for certain items, which gave no allowance for quality, and incentivised cheap, poor-quality goods.

The Roman military readily adopted types of arms and armour that were effectively used against them by their enemies. Initially Roman troops were armed after Greek and Etruscan models, using large oval shields and long pikes. On encountering the Celts they adopted much Celtic equipment and again later adopted items such as the *gladius* from Iberian peoples. Later in Rome's history, it adopted practices such as arming its cavalry with bows in the Parthian style, and even experimented briefly with niche weaponry such as elephants and camel-troops.

Besides personal weaponry, the Roman military adopted team weaponry such as the ballista and developed a naval weapon known as the *corvus*, a spiked plank used for affixing and boarding enemy ships.

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External links

- *Roman soldier reenactment* (<http://www.sheffield.ac.uk/content/1/c6/09/70/25/roman-soldiers.jpg>)

Equestrian order

The **Roman equestrian order** (Latin: *ordo equester*) constituted the lower of the two aristocratic classes of ancient Rome, ranking below the patricians (*patricii*), a hereditary caste that monopolized political power during the regal era (to 501 BC) and during the early Republic (to 338 BC). A member of the equestrian order was known as an *eques* (plural: *equites*). During the Roman kingdom and the 1st century of the Republic, legionary cavalry was recruited exclusively from the ranks of the patricians, who were expected to provide 6 *centuriae* of cavalry (300 horses for each consular legion). Around 400 BC, 12 more *centuriae* of cavalry were established and these included non-patricians (plebeians). Around 300 BC the Samnite Wars obliged Rome to double the normal annual military levy from 2 to 4 legions, doubling the cavalry levy from 600 to 1,200 horse. Legionary cavalry started to recruit wealthier citizens from outside the 18 *centuriae*. These new recruits came from the First Class of commoners in the centuriate organisation and were not granted the same privileges. By the time of the Second Punic War (218-202 BC), all the members of the First Class of commoners were required to serve as cavalrymen. The presence of knights in the Roman cavalry diminished steadily in the period 200-88 BC as only knights could serve as the army's senior officers; as the number of legions proliferated fewer were available for ordinary cavalry service. After c. 88 BC, knights were no longer drafted into the legionary cavalry, although they remained technically liable to such service throughout the Principate era (to AD 284). They continued to supply the senior officers of the army throughout the Principate.

With the exception of the purely hereditary patricians, the *equites* were originally defined by a property threshold. The rank was passed from father to son, although members of the order who at the regular quinquennial census no longer met the property requirement were usually removed from the order's rolls by the Roman censors. In the late Republic, the property threshold stood at 50,000 *denarii* and was doubled to 100,000 by the emperor Augustus (sole rule 30 BC - AD 14) - roughly the equivalent to the annual salaries of 450 contemporary legionaries. In the later Republican period, Roman Senators and their offspring became an unofficial elite within the equestrian order. As senators' ability to engage in commerce was strictly limited by law, the bulk of non-agricultural activities were in the hands of non-senatorial knights. As well as holding large landed estates, knights came to dominate mining, shipping and manufacturing industry. In particular, tax farming companies (*publicani*) were almost all in the hands of knights.

Under Augustus, the senatorial elite was given formal status (as the *ordo senatorius*) with a higher wealth threshold (250,000 *denarii*, or the pay of 1,100 legionaries) and superior rank and privileges to ordinary knights. During the Principate, knights filled the senior administrative and military posts of the imperial government. There was a clear division between jobs reserved for senators (the most senior) and those reserved for non-senatorial knights. But the career structure of both groups was broadly similar: a period of junior administrative posts in Rome or Italy, followed by a period (normally a decade) of military service as a senior army officer, followed by senior

administrative or military posts in the provinces. Senators and knights formed a tiny elite of under 10,000 members who monopolised political, military and economic power in an empire of about 60 million inhabitants.

During the 3rd century AD, power shifted from the Italian aristocracy to a class of knights who had earned their membership by distinguished military service, often rising from the ranks: career military officers from the provinces (especially the Balkan provinces) who displaced the Italian aristocrats in the top military posts, and under Diocletian (ruled 284-305) from the top civilian positions also. This effectively reduced the Italian aristocracy to an idle, but immensely wealthy group of large landowners. During the 4th century, the status of knights was debased to insignificance by excessive grants of the rank. At the same time the ranks of senators was swollen to over 4,000 by the establishment of a second senate in Constantinople and the tripling of the membership of both senates. The senatorial order of the 4th century was thus the equivalent of the equestrian order of the Principate.

Regal era (753 to 509 BC)

According to Roman legend, Rome was founded by its first king, Romulus, in 753 BC. However, archaeological evidence suggests that Rome did not acquire the character of a unified city-state (as opposed to a number of separate hilltop settlements) until c. 625 BC.^[1] According to the Roman historian Livy, Romulus established three centuries of equites, totalling 300 men. The centuries were named the Ramnenses, Tatienses and Luceres.^[2]

After the defeat of Alba Longa, and the removal of its citizens to Rome, King Tullus Hostilius added ten *turmae* of Albans (totalling an additional 300 men) to the ranks of the equites.^[3]

Livy also says that the equites were doubled in size by King Lucius Tarquinius Priscus (conventional dates 616-578 BC). After an attack on Rome by the Sabines, Tarquinius Priscus determined that Rome's military weakness lay in its lack of horsemen. It had originally been his intention to create fresh centuries of equites, named in his own honour. However, apparently out of respect for the augur Attus Navius, the king did not do this, but instead simply increased the number of men in each of the existing centuries. The effect of the changes, as described by Livy, appears confused. Livy says that:^[4]

- Tarquinius doubled the number of men in each of the existing three centuries, without adding new centuries;
- the effect of the changes was that the three centuries comprised a total of 1,800 men (which suggests that there had previously been a total of 900); and
- three new centuries were in fact created, called Ramnenses *Posteriores*, etc.

P. Fraccaro's interpretation of the so-called Servian reforms to the army suggests that under king Servius Tullius (traditional reign dates 578-535 BC), the hoplite (armoured) infantry was also doubled in size to a single legion of 6,000, which, together with 2,400 *velites* (unarmoured infantry) and 600 cavalry adds up to a total regal levy of 9,000 *iuniores* (men of military age: aged 16 to 45).^[5] Until recently, Fraccaro's thesis was not widely accepted because of the prevailing 1960s theory of Andreas Alföldi that Rome was an insignificant settlement until c. 500 BC and could not therefore have supported such a powerful army (or cavalry) in the regal era.^[6] But recent archaeology has established that Rome was one of the largest cities in the Mediterranean region in the period 625-500 BC. With an estimated 35,000 inhabitants, a military levy of 9,000 is plausible.^[7] According to Livy, Servius Tullius also established a further 12 *centuriae* of cavalry.^[8] But this is unlikely, as it would have increased the cavalry to 1,800 horse, implausibly large compared to 8,400 infantry (in peninsular Italy, cavalry typically constituted about 8% of a field army).^[9] This is confirmed by the fact that in the early Republic the cavalry fielded remained 600-strong (2 legions with 300 horse each).^[10] Apparently, knights were originally provided with a sum of money by the state to purchase a horse for military service and for its fodder. This was known as an *equus publicus*.^[8]

Mommsen argues that the royal cavalry was drawn exclusively from the ranks of the Patricians (*patricii*), the aristocracy of early Rome, which was purely hereditary.^[11] Apart from the traditional association of the aristocracy with horsemanship, the evidence for this view is the fact that, during the Republic, 6 *centuriae* (voting constituencies) of *equites* in the *comitia centuriata* (electoral assembly) retained the names of the original 6 royal cavalry *centuriae*.^{[8][12]} These are very likely "the *centuriae* of patrician nobles" in the *comitia* mentioned by the

lexicologist Festus. If this view is correct, it implies that the cavalry was exclusively patrician (and therefore hereditary) in the regal period. (However, Cornell considers the evidence tenuous).^[13]

Early Republic (509-338 BC)

It is widely accepted that the Roman monarchy was overthrown by a patrician *coup*, probably provoked by the Tarquin "dynasty"'s populist policies in favour of the plebeian class.^[14] Indeed, Alföldi suggests that the coup was carried out by the *Celeres* themselves.^[15] According to the Fraccaro interpretation, when the Roman monarchy was replaced by two annually elected *praetores* (later called Consuls), the royal army was divided equally among them for campaigning purposes, which if true explains why a later Polybian legion's cavalry contingent was 300-strong.^[16]

The 12 additional *centuriae* ascribed by Livy to Servius Tullius were in reality probably formed around 400 BC. In 403 BC, according to Livy, in a crisis during the siege of Veii, the army urgently needed to deploy more cavalry, and "those who possessed equestrian rating but had not yet been assigned public horses" volunteered to pay for their horses out of their own pocket. By way of compensation, pay was introduced for cavalry service, as it had already been for the infantry (in 406 BC).^[17] The persons referred to in this passage were probably members of the 12 new *centuriae* who were entitled to public horses, but temporarily waived that privilege. Mommsen, however, argues that the passage refers to members of the First Class of commoners being admitted to cavalry service in 403 BC for the first time as an emergency measure. If so, this group may be the original so-called knights *equo privato*, a rank that is attested throughout the history of the Republic (in contrast to knights *equo publico*). However, due to lack of evidence, the origins and definition of *equo privato* knights remain obscure.

It is widely agreed that the 12 new *centuriae* were open to non-patricians.^[18] Thus, from this date if not earlier, not all knights were patricians. The patricians, as a closed hereditary caste, steadily diminished in numbers over the centuries, as families died out. Around 450 BC, there are some 50 patrician *gentes* (clans) recorded, whereas just 14 remained at the time of Julius Caesar (dictator of Rome 48 -44 BC), whose own Iulii clan was patrician.^[19] In contrast, the ranks of knights, although also hereditary (in the male line), were open to new entrants who met the property requirement and who satisfied the Roman censors that they were suitable for membership.^[20] As a consequence, patricians rapidly became only a small minority of the Order of Knights. However, patricians retained political influence greatly out of proportion with their numbers. Until 172 BC, one of the two Consuls elected each year had to be a patrician.^[19] In addition, patricians may have retained their original 6 *centuriae*, which gave them a third of the total voting-power of the knights, even though they constituted only a tiny minority of the Order by 200 BC. Patricians also enjoyed official precedence, such as the right to speak first in senatorial debates, which were initiated by the *princeps senatus* ("Leader of the Senate"), a position reserved for patricians. In addition, patricians monopolised certain priesthoods and continued to enjoy enormous prestige.^[21]

Later Republic (338-30 BC)

Transformation of state and army (338-290)

The period following the end of the Latin War (340-338 BC) and of the Samnite Wars (343-290) saw the transformation of the Roman Republic from a powerful but beleaguered city-state into the hegemonic power of the Italian peninsula. This was accompanied by profound changes in its constitution and army. Internally, the critical development was the emergence of the Senate as the all-powerful organ of state. By 280 BC, the Senate had assumed total control of state taxation, expenditure, declarations of war, treaties, raising of legions, establishing colonies and religious affairs. In other words, of virtually all political power. From an *ad hoc* group of advisors appointed by the Consuls, the Senate had become a permanent body of c. 300 life-peers who, as largely former Roman magistrates, boasted enormous experience and influence.^[22] At the same time, the political unification of the Latin nation under Roman rule after 338 BC gave Rome a populous regional base from which to launch its wars of aggression against its neighbours.^[23]

The gruelling contest for Italian hegemony that Rome fought against the Samnite League led to the transformation of the Roman army from the Greek-style hoplite phalanx that it was in the early period to the Italian-style manipular army described by Polybius. It is believed that the Romans copied the manipular structure from their enemies the Samnites, learning through hard experience its greater flexibility and effectiveness in the mountainous terrain of central Italy.^[24] It is also from this period that every Roman army which took the field was regularly accompanied by at least as many troops supplied by the *socii* (Rome's Italian military confederates, often referred to as "Latin allies").^[25] Each legion would be matched by a confederate *ala* (literally: "wing"), a formation that contained roughly the same number of infantry as a legion, but three times the number of horse (900).^[26]

Legionary cavalry also probably underwent a transformation during this period, from the light, unarmoured horsemen of the early period to the Greek-style armoured cuirassiers described by Polybius.^[27] As a result of the demands of the Samnite hostilities, a normal consular army was doubled in size to 2 legions, making 4 legions raised annually overall. Roman cavalry in the field thus increased to approximately 1,200 horse.^[24] But this now represented only 25% of the army's total cavalry contingent, the rest being supplied by the Italian confederates. A legion's modest cavalry share of 7% of its 4,500 total strength was thus increased to 12% in a confederate army, comparable with (or higher than) any other forces in Italy except the Gauls and also similar to those in Greek armies such as Pyrrhus'.^[28]

Political role

Despite an ostensibly democratic constitution based on the sovereignty of the people, the Roman Republic was in reality a classic oligarchy, in which political power was monopolised by the richest social echelon.^[29] Probably by c. 300 BC, the centuriate organisation of the Roman citizen-body for political purposes achieved the evolved form described by Polybius and Livy (see table below). The *comitia centuriata* was the most powerful people's assembly, as it promulgated Roman laws and annually elected the Roman magistrates, the executive officers of the state: Consuls, Praetors, Aediles and Quaestors. In the assembly, the citizen-body was divided into 193 *centuriae*, or voting constituencies. Of these, 18 were allocated to knights (including patricians) and a further 80 to the First Class of commoners, securing an absolute majority of the votes (98 out of 193) for the wealthiest echelon of society, although it constituted only a small minority of the citizenry. (The lowest class, the *proletarii*, rated at under 400 *drachmae*, had just one vote, despite being the most numerous). As a result, the wealthiest echelon could ensure that the elected Magistrates were always their own members. In turn, this ensured that the Senate was dominated by the wealthy classes, as its membership was composed almost entirely of current and former Magistrates.^[30]

ANALYSIS OF ROMAN CENTURIATE ORGANISATION^[31]

Class	Property Rating (<i>drachmae</i> : <i>denarii</i> after 211 BC)	No. of votes in electoral assembly	Military service
Aristocrats			
<i>Patricii</i> (patricians)	n.a. (hereditary)	6	Officers/legionary cavalry
<i>Equites</i> (knights)	hereditary/over 25,000?*	12	Officers/legionary cavalry
Commoners			
First Class	10,000 - 25,000?	80	Legionary cavalry
Second Class	7,500 - 10,000	20	Legionary infantry
Third Class	5,000 - 7,500	20	Legionary infantry
Fourth Class	2,500 - 5,000	20	Legionary infantry
Fifth Class	400 (or 1,100) - 2,500	30	Legionary infantry (<i>velites</i>)
<i>Proletarii</i> (a.k.a. <i>capite censi</i>)	Under 400 (or 1,100)	1	Fleets (oarsmen)

Military officer role

In the "Polybian" army of the mid-republic (338 - 88 BC), knights held the exclusive right to serve as senior officers of the army.^[32] These were the 6 *tribuni militum* in each legion who were elected by the *comitia* at the start of each campaigning season and took turns to command the legion in pairs; the *praefecti sociorum*, commanders of the Italian confederate *alae*, who were appointed by the Consuls; and the 3 decurions that led each squadron (*turma*) of legionary cavalry (total 30 decurions per legion).^[33]

Cavalry role

As their name implies, knights were liable to cavalry service in the legion of the mid-Republic. They originally provided a legion's entire cavalry contingent, although from an early stage (probably from c. 400 and not later than c. 300 BC), when equestrian numbers had become insufficient, large numbers of young men from the First Class of commoners were regularly volunteering for the service, which was considered more glamorous than the infantry.^[34] The cavalry role of knights dwindled after the Second Punic War (218-201 BC), as the number of equestrians became insufficient to provide the senior officers of the army and general cavalrymen as well. Knights became exclusively an officer-class, with the First Class of commoners providing the legionary cavalry.

Ethos

From the earliest times and throughout the Republican period, Roman knights subscribed, in their role as Roman cavalrymen, to an ethos of personal heroism and glory. This was motivated by the desire to justify their privileged status to the lower classes that provided the infantry ranks, to enhance the renown of their family name, and to augment their chances of subsequent political advancement in a martial society. For knights, a focus of the heroic ethos was the quest for *spolia militaria*, the stripped armour and weapons of a foe whom they had killed in single combat. There are many recorded instances. For example, Servilius Geminus Pulex, who went on to become Consul in 202 BC, was reputed to have gained *spolia* 23 times.^[35]

The higher the rank of the opponent killed in combat, the more prestigious the *spolia*, and none more so than *spolia duci hostium detracta*, spoils taken from an enemy leader himself.^[36] Many knights attempted to gain such an honour, but very few succeeded for the obvious reason that enemy leaders were always surrounded by large numbers of elite bodyguards.^[37] One successful attempt, but with a tragic twist, was that of the decurion Titus Manlius Torquatus in 340 BC during the Latin War. Despite strict orders from the Consuls (one of whom was his own father) not to engage the enemy, Manlius could not resist accepting a personal challenge from the commander of the Tusculan cavalry, which his squadron encountered while on reconnaissance. There ensued a fiercely-contested joust with the opposing squadrons as spectators. Manlius won, spearing his adversary after the latter was thrown by his horse. But when the triumphant young man presented the spoils to his father, the latter ordered his son's immediate execution for disobeying orders. "Orders of Manlius" (*Manliana imperia*) became a proverbial army term for orders which must on no account be disregarded.^[38]



A Roman senior officer (centre) of the time of Polybius, as depicted on a bas-relief from the Altar of Cn. Domitius Ahenobarbus, ca. 122 BC. Probably a *tribunus militum* (joint legionary commander), the officer wears a decorated bronze cuirass, *pteruges*, mantle, and Attic-style helmet with horsehair plume. The sash around his cuirass probably denoted knightly rank. In the Republican army, *tribuni* were elected by the *comitia centuriata* (main people's assembly) from the members of the Order of Knights. Musée du Louvre, Paris



Roman coin issued during the Second Punic War (218-201 BC) showing (obverse) the god of war Mars and (reverse) probably the earliest image of a Roman cavalryman of the Republican era. Note helmet with horsehair plume, long spear (*hasta*), small round shield (*parma equestris*), flowing mantle. Roman cavalry was levied from the knights, and from volunteers of the second property class, until the early 1st century BC. Bronze *quincunx* from Larinum mint

Business activities

In 218 BC, the *lex Claudia* restricted the commercial activity of senators and their sons, on the grounds that it was incompatible with their status. Senators were prohibited from owning ships of greater capacity than 300 *amphorae* (about 7 tonnes) - this being judged sufficient to carry the produce of their own landed estates but too small to conduct large-scale sea transportation.^[39] From this time onwards, senatorial families mostly invested their capital in land. All other equestrians remained free to invest their wealth, greatly increased by the growth of Rome's overseas empire after the 2nd Punic War, in large-scale commercial enterprises including mining and industry, as well as land.^[40] Equestrians became especially prominent in tax farming and, by 100 BC, owned virtually all tax-farming companies (*publicani*).^[41]

During the late Republican era, the collection of most taxes was contracted out to private individuals or companies by competitive tender, with the contract for each province awarded to the *publicanus* who bid the highest advance to the state treasury on the estimated tax-take of the province. The *publicanus* would then attempt to recoup his advance, with the right to retain any surplus collected as his profit. This system frequently resulted in extortion from the common people of the provinces, as unscrupulous *publicani* often sought to maximise their profit by demanding a much higher rates of tax than originally set by the government. The provincial governors whose duty it was to curb illegal demands were often bribed into acquiescence by the *publicani*.^[42] The system also led to political conflict between *equites publicani* and the majority of their fellow-knights, especially senators, who as big landowners wanted to minimise the tax on land outside Italy (*tributum solis*), which was the main source of state revenue.^[43] This pernicious system was terminated by the first Roman emperor, Augustus (sole rule 30 BC - 14 AD), who transferred responsibility for tax collection from the *publicani* to provincial local authorities (*civitates peregrinae*).^[44] Although the latter also frequently employed private companies to collect their tax quotas, it was in their own interests to curb extortion. During the imperial era, tax collectors were generally paid an agreed percentage of the amount collected. *Equites publicani* became prominent in banking activities such as money-lending and money-changing.^[42]

Privileges

The official dress of equestrians was the *tunica angusticlavia* ("narrow-striped tunic"), worn underneath the *toga*, in such a manner that the stripe over the right shoulder was visible (as opposed to the broad stripe worn by senators.^[45]) Knights bore the title *eques Romanus*, were entitled to wear an *anulus aureus* (gold ring) on their left hand, and, from 67 BC, enjoyed privileged seats at games and public functions (just behind those reserved for senators).^[46]

The Augustan equestrian order (Principate era)

Differentiation of the senatorial order

In its narrowest sense, the term *ordo senatorius* encompassed only sitting senators, whose number was held at around 600 by the founder of the Principate, Augustus (sole rule 30 BC-AD 14) and his successors until 312. Senators' sons and further descendants technically retained equestrian rank unless and until they won a seat in the Senate. But Talbert argues that Augustus established the existing senatorial elite as a separate and superior order to the knights for the first time.^[45] The evidence for this includes:

1. Augustus for the first time set a minimum property requirement for admission to the Senate, of 250,000 *denarii*, two and a half times the 100,000 *denarii* that he set for admission to the equestrian order.^[46]
2. Augustus for the first time allowed the sons of senators to wear the *tunica laticlavia* (tunic with broad purple stripes that was the official dress of senators) on reaching their majority even though they were not yet members of the Senate.^[48]
3. Senators' sons followed a separate *cursus honorum* (career-path) to other knights before entering the Senate: first an appointment as one of the *vigintiviri* ("Committee of Twenty", a body that included officials with a variety of minor administrative functions), or as an *augur* (priest), followed by at least a year in the military as *tribunus militum laticlavius* (deputy commander) of a legion. This post was normally held before the tribune had become a member of the Senate.
4. A marriage law of 18 BC (the *lex Julia*) seems to define not only senators but also their descendants unto the third generation (in the male line) as a distinct group.^[49] There was thus established a group of men with senatorial rank (*senatorii*) wider than just sitting senators (*senatores*).



Bridle ornament inscribed *PLINIO PRAEFECTO* ("Property of the prefect Pliny"), found at *Castra Vetera* legionary base (Xanten, Germany), believed to have belonged to the classical author **Pliny the Elder** when he was a *praefectus alae* (commander of an auxiliary cavalry regiment) in Germania Inferior. Pliny was a hereditary Roman knight of the imperial era who became celebrated for his writings on natural history. He also had a distinguished career as a public servant, in a series of posts reserved for equestrians. He served as a military officer in 44-54, as equestrian governor (*procurator Augusti*) of two minor provinces in the period 70-77 and then as a secretary of state in Rome to the emperor Vespasian. By 79, he was *praefectus classis* (admiral commanding) of the main imperial fleet at Misenum in the bay of Naples. In that year, the nearby volcano Mt. Vesuvius erupted, burying the surrounding towns of Pompeii and Herculaneum. From his base across the bay, Pliny led out his fleet in an attempt to rescue thousands of survivors trapped on the shore beneath Vesuvius. But after reaching port at Stabiae, Pliny's ships were prevented from putting to sea again for several hours by a strong in-shore gale. Whilst awaiting a change of wind-direction, Pliny died on a nearby beach from inhaling toxic gases.^[47]

(Source: British Museum, London)

Despite these developments, the senatorial elite never acquired an independent existence, but remained a sub-set of the Order of Knights. A family's senatorial status depended not only on continuing to match the higher wealth qualification, but on their

leading member holding a seat in the Senate. Failing either condition, the family would revert to ordinary knightly status. Although sons of sitting senators frequently won seats in the Senate, this was by no means guaranteed, as candidates often outnumbered the 20 seats available each year, leading to intense competition.

The *ordo equester* under Augustus

As regards the equestrian order, Augustus apparently abolished the rank of *equo privato*, according all its members *equo publico* status. In addition, Augustus organised the Order in a quasi-military fashion, with members enrolled into 6 *turmae* (notional cavalry squadrons). The Order's governing body were the *seviri* ("Committee of Six"), composed of the "commanders" of the *turmae*. In an attempt to foster the knights' *esprit de corps*, Augustus revived a defunct Republican ceremony, the *recognitio equitum* ("inspection of the knights"), in which knights paraded every 5 years with their horses before the Consuls.^[18] At some stage during the early Principate, knights acquired the right to the title *egregius* ("distinguished gentleman"), while senators were styled *clarissimus*, "most distinguished".^[46]

Beyond knights with *equus publicus*, Augustus' legislation permitted any Roman citizen who was assessed in an official census as meeting the property requirement of 100,000 *denarii* to use the title of *eques* and wear the narrow-striped tunic and gold ring. But such "property-qualified knights" were not apparently admitted to the *ordo equester* itself, but simply enjoyed equestrian status. Only those granted an *equus publicus* by the emperor (or who inherited the status from their fathers) were enrolled in the Order. Imperial knights were thus divided into two tiers: a few thousand mainly Italian *equites equo publico*, members of the Order eligible to hold the public offices reserved for the knights; and a much larger group of wealthy Italians and provincials (estimated at 25,000 in the 2nd century) of equestrian status but outside the Order.^{[50][51]}

Equestrians could in turn be elevated to senatorial rank (e.g. Pliny the Younger), but in practice this was much more difficult than elevation from commoner to equestrian rank. To join the upper order, not only was the candidate required to meet the minimum property requirement of 250,000 *denarii*, but also had to be elected a member of the Senate. There were two routes for this, both controlled by the emperor:

1. The normal route was election to the post of Quaestor, the most junior magistracy (for which the minimum eligible age was 27 years), which carried automatic membership of the Senate. 20 Quaestors were appointed each year, a number which evidently broadly matched the average annual vacancies (caused by death or



A group of officers of the Praetorian Guard at a parade. The two prefects of the Guard (*praefecti praetorio*) were usually equestrians. Bas-relief found at Rome. Early 2nd century



Tombstone of the knight **Titus Cornasidius Sabinus**, detailing a typical equestrian career in the imperial period. Sabinus initially held posts in the local government of Lavinium, a town in Latium, then served as a military officer, first as *praefectus* (commander) of *cohors I Montanorum* (in Pannonia), then *tribunus militum* of legio II Augusta (in Britannia), and finally *praefectus* of *ala veterana Gallorum* (in Aegyptus). Then, after a stint as *subpraefectus classis* (deputy commander) of the imperial fleet at Ravenna, Sabinus was governor of the Alpes Poeninae and then of Dacia Apulensis provinces. His son, who erected the memorial, is described as of *equo publico* rank. Dated to the early Severan period (193-211)

expulsion for misdemeanours or insufficient wealth) so that the 600-member limit was preserved. Under Augustus, senators' sons had the right to stand for election, while equestrians could only do so with the emperor's permission. Later in the Julio-Claudian period, the rule became established that all candidates required imperial leave. Previously conducted by the people's assembly (*comitia centuriata*), the election was in the hands, from the time of Tiberius onwards, of the Senate itself, whose sitting members inevitably favoured the sons of their colleagues. Since the latter alone often outnumbered the number of available places, equestrian candidates stood little chance unless they enjoyed the special support of the emperor.^[52]

2. The exceptional route was direct appointment to a Senate seat by the emperor (*adlectio*), technically using the powers of Roman censor (which also entitled him to expel members). *Adlectio* was, however, generally used sparingly in order not to breach the 600-member ceiling. It was chiefly resorted to in periods when Senate numbers became severely depleted e.g. during the Civil War of 68-9, following which the emperor Vespasian made large-scale *adlectiones*.^[53]

Equestrian public careers

In public service, knights *equo publico* had their own version of the senatorial *cursus honorum*, or conventional career-path, which typically combined military and administrative posts. After an initial period of a few years in local government in their home regions as administrators (local *aediles* or *duumviri*) or as priests (*augures*), knights were required to serve as military officers for about 10 years before they would be appointed to senior administrative or military posts.^[54] Equestrians exclusively provided the *praefecti* (commanders) of the imperial army's auxiliary regiments and 5 of the 6 *tribuni militum* (senior staff officers) in each legion. The standard equestrian officer progression was known as the *tres militiae* ("three services"): (1) *praefectus* of a *cohors* (auxiliary infantry regiment), followed by (2) *tribunus militum* in a legion, and finally (3) *praefectus* of an *ala* (auxiliary cavalry regiment). From the time of Hadrian, a fourth *militia* was added for exceptionally gifted officers, commander of an *ala milliaria* (double-strength *ala*). Each post would be held for 3–4 years.^[55]

Most of the top posts in the imperial administration were reserved for senators, who provided the governors of the larger provinces (except Egypt), the *legati legionis* (legion commanders) of all legions outside Egypt, and the *praefectus urbi* (prefect of the City of Rome), who controlled the *Cohortes Urbanae* (public order battalions), the only fully armed force in the City apart from the Praetorian Guard. Nevertheless, a wide range of senior administrative and military posts were created and reserved for equestrians by Augustus, though most ranked below the senatorial posts.^[56]

In the imperial administration, equestrian posts included that of the governorship (*praefectus Augusti*) of the province of Egypt, which was considered the most prestigious of all the posts open to knights, often the culmination of a long and distinguished career serving the state. In addition, knights were appointed to the governorship (*procurator Augusti*) of some smaller provinces and sub-provinces e.g. Judaea, whose governor was subordinate to the governor of Syria. Equestrians were also the chief financial officers (also called *procuratores Augusti*) of the imperial provinces, and the deputy financial officers of senatorial provinces. At Rome, equestrians filled numerous senior administrative posts such as the emperor's secretaries of state (from the time of Claudius e.g. Correspondence and Treasury) and the *praefecti annonae* (director of grain supplies). In the military, equestrians provided the *praefecti praetorio* (commanders of the Praetorian Guard) who also acted as the emperor's chiefs of military staff. There were normally two of these, but at times irregular appointments resulted in just a single incumbent or even 3 at the same time.^[57] Equestrians also provided the *praefecti classis* (admirals commanding) of the two main imperial fleets at Misenum in the bay of Naples and at Ravenna on the Italian Adriatic coast. The command of Rome's fire brigade and minor constabulary, the *Vigiles*, was likewise reserved for knights.^[54]

Not all knights followed the conventional career-path. Those equestrians who specialised in a legal or administrative career, providing judges (*iudices*) in Rome's law courts and state secretaries in the imperial government, were granted dispensation from military service by emperor Hadrian (r. AD 117-138).^[58] At the same time, many knights

became career military officers, remaining in the army for much longer than 10 years. After completing their *tres militiae*, some would continue to command auxiliary regiments, moving across units and provinces.^[59]

Already wealthy to start with, *equites equo publico* accumulated even greater riches through holding their reserved senior posts in the administration, which carried enormous salaries (although they were generally smaller than senatorial salaries).^[43] For example, the salaries of equestrian *procuratores* (fiscal and gubernatorial) ranged from 15,000 to a maximum of 75,000 *denarii* (for the governor of Egypt) per annum, whilst an equestrian *praefectus* of an auxiliary cohort was paid about 50 times as much as a common foot soldier (about 10,000 *denarii*). A *praefectus* could thus earn in one year the same as two of his auxiliary rankers combined earned during their entire 25-year service terms.^{[60][61]}

Relations with emperor

It was suggested by ancient writers, and accepted by many modern historians, that Roman emperors trusted equestrians more than men of senatorial rank, and used the former as a political counterweight to the senators. According to this view, senators were often regarded as potentially less loyal and honest by the emperor, as they could become powerful enough, through the command of provincial legions, to launch coups. They also had greater opportunities for peculation as provincial governors. Hence the appointment of equestrians to the most sensitive military commands. In Egypt, which supplied much of Italy's grain needs, the governor and the commanders of both provincial legions were drawn from the equestrian order, since placing a senator in a position to starve Italy was considered too risky.^[62] The commanders of the Praetorian Guard, the principal military force close to the emperor at Rome, were also usually drawn from the equestrian order.^[46] Also cited in support of this view is the appointment of equestrian fiscal *procuratores*, reporting direct to the emperor, alongside senatorial provincial governors. These would supervise the collection of taxes and act as watchdogs to limit opportunities for corruption by the governors (as well as managing the imperial estates in the province).

According to Talbert, however, the evidence suggests that knights were no more loyal or less corrupt than senators.^[63] For example, *ca.* 26 BC, the equestrian governor of Egypt, Gaius Cornelius Gallus, was recalled for politically suspect behaviour and sundry other misdemeanours. His conduct was deemed sufficiently serious by the Senate to warrant the maximum penalty of exile and confiscation of assets.^[64] Under Tiberius, both the senatorial governor and the equestrian fiscal procurator of Asia province were convicted of corruption.^[65] There is evidence that emperors were as wary of powerful knights as they were of senators. Augustus enforced a tacit rule that senators and prominent equestrians must obtain his express permission to enter the province of Egypt, a policy that was continued by his successors.^{[62][66]} Also, the command of the Praetorian Guard was normally split between two knights, to reduce the potential for a successful *coup d'état*. At the same time, command of the second military force in Rome, the *cohortes urbanae*, was entrusted to a senator.

Oligarchical rule in the early Principate (to AD 197)

Because the Senate was limited to 600 members, knights *equo publico*, numbering several thousands, greatly outnumbered men of senatorial rank.^[50] Even so, senators and knights combined constituted a tiny elite in a citizen-body of about 6 million (in AD 47) and an empire with a total population of 60-70 millions.^{[67][68]} This immensely wealthy elite monopolised political, military and economic power in the empire. It controlled the major offices of state, command of all military units, ownership of a significant proportion of the empire's arable land (e.g. under Nero (r.54-68), half of all land in Africa proconsularis province was owned by just 6 senators) and of most major commercial enterprises.^[69] Overall, senators and knights cooperated smoothly in the running of the empire. In contrast to the chaotic civil wars of the late Republic, the rule of this tiny oligarchy achieved a remarkable degree of political stability. In the first 250 years of the Principate (30 BC - AD 218), there was only a single episode of major internal strife: the Civil war of 68-9.

Equestrians in the later empire (AD 197-395)

Rise of the military equestrians (3rd century)

The 3rd century saw two major trends in the development of the Roman aristocracy: (1) the progressive takeover of the top positions in the empire's administration and army by military equestrians and the concomitant exclusion of the Italian aristocracy, both senators and knights; (2) the growth in hierarchy within the aristocratic orders.

Augustus instituted a policy, followed by his successors, of elevating to the *ordo equester* the *primus pilus* (chief centurion) of each legion, at the end of his single year in the post.^[70] This resulted in about 30 career-soldiers, often risen from the ranks, joining the Order every year. These *equites primipilares* and their descendants formed a section of the Order which was quite distinct from the Italian aristocrats who had become nearly indistinguishable from their senatorial counterparts.^[46] They were almost entirely provincials, especially Romanised Illyrians and Thracians from the Danubian provinces where about half the Roman army was deployed. They were generally far less wealthy than the landowning Italians (not benefiting from centuries of inherited wealth) and they rarely held non-military posts.^[71]

Their professionalism led emperors to rely on them ever more heavily, especially in difficult conflicts such as the Marcomannic Wars (166-80). But because they were only equestrians, they could not be appointed to the top military commands, those of *legatus Augusti pro praetore* (governor of an imperial province, where virtually all military units were deployed) and *legatus legionis* (commander of a legion). In the later 2nd century, emperors tried to circumvent the problem by elevating large numbers of *primipilares* to senatorial rank by *adlectio*. But this met resistance in the Senate, so that in the 3rd century, emperors simply appointed equestrians directly to the top commands, under the fiction that they were only temporary substitutes (*praeses pro legato*). Septimius Severus (r. AD 193-211) appointed *primipilares* to command the 3 new legions that he raised in 197 for his Parthian War.^[72] Gallienus (r. AD 253-268) completed the process by appointing knights to command all the legions.^[73] These appointees were mostly provincial soldier-equestrians, not Italian aristocrats.^[74]

Under the reforming emperor Diocletian (r. AD 284-305), himself an Illyrian equestrian officer, the military equestrian "takeover" was brought a stage further, with the removal of hereditary senators from most administrative, as well as military posts. Hereditary senators were limited to administrative jobs in Italy and a few neighbouring provinces (Sicily, Africa, Achaia and Asia), despite the fact that senior administrative posts had been greatly multiplied by the tripling of the number of provinces and the establishment of dioceses (super-provinces). The exclusion of the old Italian aristocracy, both senatorial and equestrian, from the political and military power that they had monopolised for many centuries was thus complete. The Senate became politically insignificant, although it retained great prestige.^[75]

The 3rd and 4th centuries saw the proliferation of hierarchical ranks within the aristocratic orders, in line with the greater stratification of society as a whole, which became divided into two broad classes, with discriminatory rights and privileges: the *honestiores* ("more noble") and *humiliores* ("more base"). Among the *honestiores*, equestrians were divided into 5 grades, depending on the salary-levels of the offices they held. These ranged from *egregii* or *sexagenarii* (salary of 60,000 *sesterces* = 15,000 *denarii*) to the *eminentissimi* ("most exalted"), limited to the 2



The emperor Maximinus I (Thrax) (ruled 235-8), whose career epitomises the soldier-equestrians who took over command of the army during the 3rd century. A Thracian shepherd who had led a group of peasant vigilantes against rural robbers in his home region, he joined the army as a cavalryman in ca. 197 under Septimius Severus and was probably granted an *equus publicus* by Caracalla towards the end of his rule (218). Under Alexander Severus he was given command of a legion and later served as provincial governor (*praeses pro legato*) in Mauretania Tingitana and in Germania before seizing supreme power in a *coup d'état* in 235

commanders of the Praetorian Guard and, with the establishment of Diocletian's Tetrarchy, the 4 *praefecti praetorio* (not to be confused with the commanders of the Praetorian Guard in Rome) that assisted the Tetrarchs, each ruling over a quarter of the empire.^[76]

The idle aristocracy (4th century)

From the reign of Constantine I the Great (312–37) onwards, there was an explosive increase in the membership of both aristocratic orders. Under Diocletian, the number of sitting members of the Senate remained at around 600, the level it had retained for the whole duration of the Principate.^[76] But Constantine established Byzantium as a twin capital of the empire, with its own senate, initially of 300 members. By 387, their number had swollen to 2,000, while the Senate in Rome probably reached a comparable size, so that the upper order reached total numbers similar to the *equo publico* knights of the early Principate.^[77] By this time, even some commanders of military regiments were accorded senatorial status.^[78]

At the same time the order of knights was also expanded vastly by the proliferation of public posts in the late empire, most of which were now filled by equestrians. The Principate had been a remarkably slim-line administration, with about 250 senior officials running the vast empire, relying on local government and private contractors to deliver the necessary taxes and services. By the time of the *Notitia*, comparable positions had grown to *ca.* 6,000, a 24-fold increase.^[79] In addition, large numbers of *decuriones* (local councillors) were granted equestrian rank, often obtaining it by bribery. Officials of ever lower rank were granted equestrian rank as reward for good service e.g. in 365, the *actuarii* (accountants) of military regiments. This inflation in knights' numbers inevitably led to the debasement of the order's prestige. By AD 400, knights were no longer an *echelon* of nobility, but just a title associated with mid-level administrative posts.^[58]

Constantine established a third order of nobility, the *comites* ("companions (of the emperor)", singular form *comes*, the origin of the medieval noble rank of count). This overlapped with senators and knights, drawing members from both. Originally, the *comites* were a highly exclusive group, comprising the most senior administrative and military officers, such as the commanders of the *comitatus*, or mobile field armies. But *comites* rapidly followed the same path as knights, being devalued by excessive grants until the title became meaningless by 450.^[78]

In the late 4th and in the 5th century, therefore, the senatorial class at Rome and Byzantium became the closest equivalent to the *equo publico* equestrian class of the early Principate. It contained many ancient and illustrious families, some of whom claimed descent from the aristocracy of the Republic, but had, as described, lost almost all political and military power.^[80] Nevertheless, senators retained great influence due to their enormous inherited wealth and their role as the guardians of Roman tradition and culture.^[81] Centuries of capital accumulation, in the form of vast landed estates (*latifundia*) across many provinces resulted in enormous wealth for most senators. Many received annual rents in cash and in kind of over 5,000 lbs of gold, equivalent to 360,000 *solidi* (or 5 million Augustan-era *denarii*), at a time when a *miles* (common soldier) would earn no more than 4 *solidi* a year in cash. Even senators of middling wealth could expect an income 1,000–1,500 lbs of gold.^[82] The 4th century historian Ammianus Marcellinus, a former high-ranking military staff-officer who spent his retirement years in Rome, bitterly attacks the Italian aristocracy, denouncing their extravagant palaces, clothes, games and banquets and above all their lives of total idleness and frivolity.^[83] In his words can be heard the contempt for the senatorial class of a career-soldier who had spent his lifetime defending the empire, a view clearly shared by Diocletian and his Illyrian successors. But it is the latter who reduced the aristocracy to that state, by displacing them from their traditional role of governing the empire and leading the army.^[84]

Notes

- [1] Cornell (1995) 94, 102
- [2] Livy, *Ab urbe condita*, 1.13
- [3] Livy, *Ab urbe condita*, 1.30
- [4] Livy, *Ab urbe condita*, 1.36
- [5] Cornell (1995) 181-2
- [6] Cornell (1995) 209
- [7] Cornell (1995) 204-7
- [8] Livy I.43
- [9] Based on figures in Polybius II.24
- [10] Cornell (1995) 193
- [11] Cornell (1995) 245
- [12] **6 centuriae:** The original 3 cavalry *centuriae* were named after the tribes from which they were drawn: Ramnes, Tities and Luceres. When an additional 3 *centuriae* were established by king Tarquinius Priscus, the latter took the tribal names with the suffix *posteriores*, with the original 3 being called *priores*
- [13] Cornell (1995) 250
- [14] **Roman kingship:** The Roman monarchy, although an autocracy, was not hereditary and based on "divine right", but elective and subject to the ultimate sovereignty of the people. The king (*rex*) was elected by the people's assembly (the *comitia curiata* originally) although there is strong evidence that the process was in practice controlled by the patricians. Most kings were non-Romans brought in from abroad, doubtless as a neutral figure who could be seen as above patrician factions. Although blood relations could and did succeed, they were still required to submit to election. Cornell (1995) 141–42 The position and powers of a Roman king were thus similar to those of Julius Caesar when he was appointed dictator-for-life in 44 BC. That was why Caesar's assassin Marcus Junius Brutus felt a moral obligation to emulate his claimed ancestor Lucius Junius Brutus, "The Liberator", the man who, Roman tradition averred, in 509 BC led the coup which overthrew the last king, Tarquin the Proud, and established the Republic. Plutarch *Brutus* 10-2
- [15] Cornell (1995) 238, 446 note 32
- [16] Cornell (1995) 182
- [17] Livy V.7
- [18] Online 1911 Encyclopædia Britannica *Equites*
- [19] Oxford *Patricians*
- [20] Livy XXXIX.19, 44
- [21] Online Encyclopædia Britannica *Patricians*
- [22] Cornell (1995) 369
- [23] Cornell (1995) 351
- [24] Cornell (1995) 354
- [25] Cornell (1995) 366
- [26] Polybius VI.26
- [27] Polybius VI.25
- [28] Sidnell (2006) 152
- [29] Cornell (1995) 372
- [30] Cornell (1995) 379-80
- [31] Based on Polybius VI.19, 20; Livy I.43 and Cornell (1995) 380
- [32] Smith (1890) *Equites*
- [33] Polybius VI.19, 26
- [34] Goldsworthy (2000) 49
- [35] Livy, XLV.39.16; Plutarch *Aemilius Paullus* 31.2
- [36] **Spolia opima:** The highest form of *spolia duci hostium detracta* (spoils taken from an enemy leader) were known as the *spolia opima* ("rich spoils"), which were displayed in the Temple of Jupiter Feretrius in Rome. According to the most widely-understood version of the tradition, to earn the *spolia opima* one had to be a Roman commander-in-chief who killed the enemy paramount leader in single combat. The *spolia opima* were won only three times: by Romulus for killing Acro, king of the Caeninenses (ca. 750 BC); by Aulus Cornelius Cossus for killing Lars Tolumnius, king of the Veientes (in 437 or 425 BC); and by Marcus Claudius Marcellus for killing Viridomarus, king of the Celtic Gaesatae (in 222 BC). Plutarch *Romulus*; *Marcellus* However, the award to Cossus was a matter for some controversy, as, according to Livy, he was only a *tribunus militum*, and not commander-in-chief of the army at the time. Livy IV.20 A minority tradition, originally preserved by Varro, antiquarian of the late Republic, held that *spolia opima* could be won by any Roman soldier who killed the enemy leader in battle. Festus *Lexicon* "Opima Spolia" According to Varro, there were three classes of *spolia opima*: First Class, spoils taken by the Roman commander-in-chief, which alone could be dedicated to Jupiter Feretrius; Second Class, spoils taken by a Roman officer; and Third Class, those taken by a common soldier. Smith (1890) *Spolia*
- [37] Sidnell (2006) 153-4
- [38] Livy VIII.7-8

- [39] Livy XXI.63
 - [40] Jones (1964) 6
 - [41] Tacitus *Annales* IV.6
 - [42] Encyclopædia Britannica Online *Publicani*
 - [43] Talbert (1996) 341
 - [44] Burton (1987) 426
 - [45] Talbert (1996) 326
 - [46] Jones (1964) 8
 - [47] Pliny the Younger *Letters* VI.19
 - [48] Suetonius *Augustus* 38.2
 - [49] Online Roman Law Library *Lex Iulia de maritandis ordinibus*
 - [50] Jones (1964) 7, 8
 - [51] Encyclopædia Britannica Online *Ancient Rome*
 - [52] Talbert (1996) 333
 - [53] Eck in *CAH XI* (2000) 215-6
 - [54] Talbert (1996) 340
 - [55] Goldsworthy (2003) 65
 - [56] Goldsworthy (2003) 60, 64, 65
 - [57] Goldsworthy (2003) 64-5
 - [58] Jones (1964)
 - [59] Goldsworthy (2003) 66
 - [60] Birley (1988) 46
 - [61] Jones (1964) 31
 - [62] Tacitus *Annales* II.59
 - [63] Talbert (1996) 342
 - [64] Dio Cassius LIII.23
 - [65] Tacitus *Annales* IV.13
 - [66] Ritner (1998) 1-2.
 - [67] Tacitus *Annales* XI.25
 - [68] Scheidel (2006) 9
 - [69] Thompson (1987) 556
 - [70] Goldsworthy (2000) 129
 - [71] Goldsworthy (2000) 164-5
 - [72] Goldsworthy (2000) 164
 - [73] Tomlin (1988) 108
 - [74] Holder (1982) 65
 - [75] Jones (1964) 50, 525, 526
 - [76] Jones (1964) 525
 - [77] Jones (1964) 527
 - [78] Jones (1964) 528
 - [79] Heather (2005) 228
 - [80] Jones (1964) 545-56
 - [81] Jones (1964) 561-62
 - [82] Jones (1964) 554
 - [83] Ammianus XXVIII.4
 - [84] Jones (1964) 50, 525
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External links

- Roman Social Class and Public Display (<http://www.vroma.org/~bmcmanus/socialclass.html>)
- Livius.org: Eques (Knight) (<http://www.livius.org/ei-er/eques/eques.html>)
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List of Roman legions

This is a **list of Roman legions**, including key facts about each legion, primarily focusing on Principate (early Empire, 27 BC - 284 AD) legions, for which there exists substantial literary, epigraphic and archaeological evidence.

Until the 1st century BC, legions were temporary citizen levies, raised for specific campaigns and disbanded after them. By the early 1st century BC, legions were mixed volunteer/conscript units. Legions became standing units, which could remain intact long after a particular campaign was finished. Large numbers of new legions were raised by rival warlords for the civil wars of the period 49-30 BC.

However, when Augustus became sole ruler in 30 BC, he disbanded about half of the over 50 legions then in existence. The remaining 28 legions became the core of the early Imperial army of the Principate (27 BC – 284 AD), most lasting over three centuries. Augustus and his immediate successors transformed legions into permanent units, staffed by entirely career soldiers on standard 25-year terms.

During the Dominate (late Empire, 284–476), legions were also professional, but are little understood due to scarcity of evidence compared to the Principate. What is clear is that late legions were radically different in size, structure and tactical role from their predecessors, despite several retaining early period names. This was the result of the military reforms of Emperors Diocletian and Constantine I, and of further developments during the 4th century.

The legions were identified by Roman numerals, though the spelling sometimes differed from the modern "standard". For example, in addition to the spellings "IV", "IX", "XIV", "XVIII" and "XIX", the respective spellings "IIII", "VIII", "XIII", "XIIX" and "XVIII" were commonly used.^[1]

Late Republican legions

Until the Marian reforms of 107 BC, the Republican legions were formed by compulsory levy of Roman citizens (who met a minimum property qualification) and raised whenever it was necessary. Usually they were authorized by the Roman Senate, and were later disbanded.

Gaius Marius' reforms transformed legions into standing units, which could remain in being for several years, or even decades. This became necessary to garrison the Republic's now far-flung territories. Legionaries started large-scale recruiting of volunteer soldiers enlisted for a minimum term of six years and a fixed salary, although conscription was still practiced. The property requirements, already much reduced, seem to have been abolished by Marius, so that the bulk of recruits were henceforth from the landless proletariat, who would be most attracted to the paid employment offered by the legions.

In the last century of the Republic, proconsuls governing frontier provinces became increasingly powerful. Their command of standing legions in distant and arduous military campaigns resulted in the allegiance of those units transferring from the Roman state to themselves. These *imperatores* (lit: victorious generals, from the title *imperator* they were hailed with by their troops) frequently fell out with each other and started civil wars to seize control of the state. e.g. Sulla, Caesar, Pompey, Crassus, Mark Antony and Octavian (later Augustus, the first Emperor himself). In this context, the *imperatores* raised many legions that were not authorised by the Senate, sometimes having to use their own resources (generally extorted from the provinces they controlled). As civil wars were resolved, many of these "private" units would be disbanded, only for more to be raised to fight the next civil war. By the time Augustus emerged as sole ruler in 30BC, over 50 legions were in existence, many of which were disbanded.

The legions included in the following list had a long enough history to be somehow remarkable. Most of them were levied by Julius Caesar and later included into Octavian's army, some of them were levied by Mark Antony.

- Legio I *Germanica* (*Germanic*): 48 BC–70 (Batavian rebellion), Julius Caesar
 - Legio II *Sabina* (*Sabine*): 43 BC to circa 9 AD, early name of the Legio II *Augusta*
 - Legio III *Cyrenaica* (*from Cyrenaica*): probably around 36 BC to (at least) 5th century, Mark Antony
 - Legio III *Gallica* (*from Gallia*): around 49 BC to at least early 4th century, Julius Caesar (emblem: bull)
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- Legio IV *Macedonica* (*Macedonian*): 48 BC–70 (disbanded by Vespasian), Julius Caesar (emblem: bull, capricorn)
- Legio IV *Scythica* (*from Scythia*): around 42 BC to at least early 5th century, Mark Antony (emblem: capricorn)
- Legio V *Alaudae* (*Larks*): 52 BC–70 (destroyed in the Batavian rebellion), Julius Caesar (emblem: elephant)
- Legio VI *Ferrata* (*Ironclad*): 52 BC to after 250, Julius Caesar (emblem: bull, wolf and Romulus and Remus); twin legion of Legio VI *Victrix*
- Legio VI *Victrix* (*Victorious*): 41 BC to after 402 Octavian (emblem: bull)
- Legio VII *Claudia Pia Fidelis*: 51 BC–44 BC, Julius Caesar; disbanded and re-formed by Vespasian as Legio VII *Gemina*
- Legio VIII *Augusta*: 59 BC–48 BC, Julius Caesar, disbanded and re-enlisted by Augustus as Legio VIII *Augusta*
- Legio IX *Hispana Triumphalis* (*Triumphant*): 59 BC–48 BC, Julius Caesar, disbanded and re-enlisted by Augustus as Legio IX *Hispana*
- Legio X *Fretensis* (*of the sea strait*), also known as X *Equestris* (*Mounted*): before 58 BC–45 BC, Julius Caesar's personal legion.
 - Legio X *Veneria* (devoted to the goddess *Venus*): another name of X *Equestris*.
 - Legio X *Equestris* levied by Augustus in 41/40 BC
- Legio XI: 58 BC–45 BC, Julius Caesar (emblem: Neptune), disbanded, reconstituted by Augustus
- Legio XII *Victrix* (*Victorious*): 57 BC–45, Julius Caesar
 - Legio XII *Antiqua* (*Ancient*): reconstituted by Lepidus in 43 BC, named by Mark Antony, included in Augustus army as Legio XII *Fulminata*
- Legio XIII *Gemina*: 57 BC–45 BC: Julius Caesar, later (41 BC) reconstituted as Legio XIII *Gemina* by Augustus
- Legio XVIII *Libyca* (*from Libya*): disbanded 31 BC, Mark Antony
- Legio XXX *Classica* (*Naval*): 48 BC–41 BC, Julius Caesar

Early Empire legions

Code for Roman provinces in the table:

- AEG Aegyptus (*Egypt*)
- AFR Africa (*Tunisia/Western Libya*)
- AQ Aquitania (*SW France*)
- AR Arabia Petraea (*Jordan/Sinai*)
- BRIT Britannia (*England/Wales*)
- CAP Cappadocia (*Central/Eastern Turkey*)
- DC Dacia (*Romania/Serbia*)
- DLM Dalmatia (*Croatia/Bosnia/Serbia*)
- GAL Galatia (*Central Turkey*)
- GI Germania Inferior (*Netherlands/Rhineland*)
- GS Germania Superior (*Alsace-Lorraine/Rhineland*)
- HISP Hispania Tarraconensis (*Central Spain*)
- IT Italia (*Italy*)



The Roman empire and legions deployed in 125 AD, in the time of emperor Hadrian.

- JUD Judaea (*Palestine*)
- MAUR Mauretania (*Western Maghreb*)
- MCD Macedonia (*Southern Balkans*)
- MI Moesia Inferior (*Romania/Bulgaria*)
- MS Moesia Superior (*Serbia*)
- NR Noricum (*Austria*)
- PAN Pannonia (*Croatia/Slovenia*)
- RT Raetia (*Switzerland*)
- SYR Syria (*Syria/Lebanon*)

Roman legions of the early Empire (units founded between 59 BC and 250 AD)

Legion no. and title	Main legionary base	Emblem	Date founded/founder	Date disband	Castra legionaria (legion bases) * = main base. Start date 31BC if unspecified	Notes
I Adiutrix	Szöny, Hungary	Capricorn	68 Nero	444	70-86 Moguntiacum (GS); 86-mid 5th C Brigetio* (PAN)	"1st Auxiliary". Was <i>I classica</i> (raised from marines)
I Germanica	Bonn, Germany	Bull	48 BC Caesar	70 DD	to 16 BC HISP; c5 BC-70 AD Bonna* (GI)	Disbanded for cowardice in Batavi revolt
I Italica	Svishtov, Bulgaria	Boar	66 Nero	post 400	70-early 5th C Novae* (MI)	<i>prima Italica</i> : raised for aborted Caucasus war
I Macriana			68 Macer	69 DD	(Raised for mutiny against Nero by Macer, gov of AFR)	<i>liberatrix</i> : "Liberator 1st". Disbanded by Galba
I Minervia	Bonn, Germany	Minerva	82 Domitian	post 300	82-4th C Bonna* (GI)	"Minerva-revering 1st"
I Parthica	Sinjar, Iraq	Centaur	197 S. Severus	post 400	197-early 5th C Nisibis* (SYR)	Raised for Parthian campaign 197
II Adiutrix	Budapest, Hungary	Capricorn	70 Vespasian	269+	70-87 BRIT; 87-106 MS; 106-min269 Aquincum* (PAN)	"2nd Auxiliary." Ex-naval legion.
II Augusta	Caerleon, Wales	Capricorn	pre 9 Augustus	post 300	to c9 AD HISP; 43-74 BRIT; 74-min255 Isca Augusta* (BRIT)	Failed to engage Boudicca 60. c395 at Rutupiae (BRIT)
II Italica	Enns, Austria	She-Wolf	165 M Aurelius	post 400	180-c400 Lauriacum* (NR)	Wolf-suckling twins Rome's national emblem
II Parthica	Albano Laziale, Italy	Centaur	197 S. Severus	post 350	197-218 Castra Albana* (IT); 218-34 SYR; 238-c300 C. Albana	4th C recorded at Bezabde (SYR)
II Traiana	Alexandria, Egypt	Hercules	105 Trajan	post 400	125-5th C Nicopolis* (AEG)	<i>secunda fortis</i> "Trajan's valliant 2nd"
III Augusta	Batna, Algeria	Pegasus	43 BC Augustus	post 350	to 20 AD AFR; 20-75 Ammaedara 74-350+ Lambaesis* (MAUR)	Decimated for cowardice in Mauri war (18 AD)
III Cyrenaica	Busra, Syria		36 BC M Antony	post 400	to 35 AD Thebes 35-125 Alexandria AEG; 125-5th C Bostra* AR	"3rd from Cyrene"
III Gallica	Abila, Jordan	Two Bulls	49 BC Caesar	post 300	31 BC-4th C Raphana* (SYR)	<i>tertia Gallica</i> : "3rd from Gaul"
III Italica	Regensburg, Germany	Stork	165 M Aurelius	post 300	165-4th C Castra Regina* (RT)	Raised for war on Marcomanni
III Parthica	Ra's al-'Ayn, Syria	Bull	197 S. Severus	post 400	197-4th C Resaena* (SYR)	Raised for Parthian campaign 197

Legion no and title	Main legionary base	Emblem	Date founded/founder	Date disband	Castra legionaria (legion bases) * = main base. Start date 31BC if unspecified	Notes
IV Flavia Felix	Belgrade, Serbia	Lion	70 Vespasian	pre 400	86-4th C Singidunum* (MS)	Vespasian's lucky 4th. Reformed <i>IV Macedon</i>
IV Macedonica	Mainz, Germany	Bull	48 BC Caesar	70 DD	to 43 AD HISP; 43-70 Moguntiacum* (GS)	Disbanded for cowardice in Batavi revolt
IV Scythica	Gaziantep, Turkey	Capricorn	42 BC M Antony	post 400	to 58 AD MS; 68-5th C Zeugma* (SYR)	<i>quarta scythica</i> : "Scythian-conquering 4th"
V Alaudae	Xanten, Germany	Elephant	52 BC Caesar	87 XX	to 19 BC HISP; c10 BC-70 AD Castra Vetera* (GI)	"Larks 5th" Feathers in helmet? XX by Dacians
V Macedonica	Turda, Romania	Eagle	43 BC Augustus	post 500	6-101 Oescus, 107-61 Troesmis (MI); 166-274 Potaissa* (DC)	<i>quinta macedonica</i> : "5th from Macedonia"
VI Ferrata	Galilee, Israel	She-Wolf	58BC Caesar	250+ UF	to 71AD Raphana (SYR); 135-250+ Caparcotna* (JUD)	"Ironclad 6th". XX at Battle of Edessa 260?
VI Hispana			post 212	250+ UF	unknown	Only 1 record. XX at Battle of Abrittus 251?
VI Victrix	York, England	Bull	41 BC Augustus	post 400	to 70 AD Leon (HISP); 71-122 GI; 122-c400 Eburacum* (BRIT)	"Victorious 6th" built Hadrian's Wall 122-32
VII Claudia	Kostolac, Serbia	Bull	58 BC Caesar	c.400	to 9 AD GAL; 9-58 DLM; 58-c400 Viminacium* (MS)	<i>septima Claudia</i> : title for crushing mutiny 42
VII Gemina	León, Spain		68 Galba	c.400	75-c400 Castra Legionis* (HISP)	Raised in Hispania by Galba for march on Rome
VIII Augusta	Strasbourg, France	Bull	59 BC Caesar	post 371	9-44 Poetovio PAN; 44-70 Novae MI; 70-371+ Argentorate* GS	<i>octava Augusta</i> :
IX Hispana	York, England	Bull	41 BC Augustus	120+ UF	to 13 BC HISP; 9-43 PAN?; 71-c120 Eburacum* (BRIT)	<i>nona Hispana</i> : XX in 2nd Jewish War c132?
X Fretensis	Jerusalem	Boar	40 BC Augustus	post 400	to 25 BC JUD; 25 BC-66 AD SYR; 73-c400+ Hierosolyma*	<i>fretum</i> = Strait of Otranto, Naulochus 36 BC
X Gemina	Vienna, Austria	Bull	42 BC Lepidus	post 400	to 71 HISP; 71-103 Noviomagus GI; 103-c400 Vindobona* PAN	Was X equestris, Caesar's "mounted" legion
XI Claudia	Silistra, Bulgaria	Neptune	42 BC Augustus	post 400	to 71 AD DLM; 71-104 Vindonissa RT; 104-c400 Durostorum* MI	<i>undecima Claudia</i> : honoured by Claudius
XII Fulminata	Malatya, Turkey	Thdrbolt	43 BC Lepidus	post 400	to 14 AD AEG; 14-71 Raphana (SYR); 71-c400 Melitene* (CAP)	Thunderbolt 12th lost aquila in 1st Jewish War

Legion no and title	Main legion base	Emblem	Date founded/founder	Date disband	Castra legionaria (legion bases) * = main base. Start date 31 BC if unspecified	Notes
XIII Gemina	Alba Iulia, Romania	Lion	57 BC Caesar	post 400	45-106 Poetovio PAN 106-270 Apulum* DC 270-400 MI	"Twinned 13th". Crossed Rubicon with Caesar 49 BC
XIV Gemina	Petronell, Austria	Capricorn	41 BC Augustus	post 400	9-43 GS; 43-70 BRIT; 70-92 GS; 106-c400 Carnuntum*	Defeated Boudica's Britons at Watling Street (60 AD)
XV Apollinaris	Saddagh, Turkey	Apollo	41 BC Augustus	post 400	9-61 NR 61-73 SYR 73-117 NR; 117-c400 Satala* CAP	"Apollo-revering 15th". Fought in First Jewish War
XV Primigenia	Xanten, Germany	Fortuna	39 Caligula	70 XX	39-43 Moguntiacum (GS); 43-70 Castra Vetera* (GI)	Primigenia goddess of Fate. XX in Batavi revolt
XVI Flavia Firma	Samsat, Turkey	Lion	70 Vespasian	post 300	70-117 Satala (CAP); 117-300+ Samosata* SYR	"Vespasian's steadfast 16th". Reformed XVI <i>Gallica</i>
XVI Gallica	Mainz, Germany	Lion	41 BC Augustus	70 DD	to 43AD Moguntiacum* (GS); 43-70 Novaesium* (GI)	Disbanded for cowardice in Batavi revolt
XVII	Xanten, Germany		41 BC Augustus	9 XX	to 15 BC AQ?; 15 BC-9 AD Castra Vetera* (GI)	Destroyed in Teutoburg Forest, lost aquila standard, never rebuilt
XVIII	Xanten, Germany		41 BC Augustus	9 XX	to 15 BC AQ?; 15 BC-9 AD Castra Vetera* (GI)	Destroyed in Teutoburg Forest, lost aquila standard, never rebuilt
XIX	Xanten, Germany		41 BC Augustus	9 XX	to 15 BC unknown; 15 BC-9 AD somewhere in GI	Destroyed in Teutoburg Forest, lost aquila standard, never rebuilt
XX Valeria Vict.	Chester, England	Boar	31 BC Augustus	250+ UF	to 9 AD DLM; 9-43 GI; 43-75 BRIT; 75-250+ Deva* BRIT	<i>vigesima</i> named for Messalla? XX in Allectus' fall 296?
XXI Rapax	Windisch, Switzerland	Capricorn	31 BC Augustus	92 XX	9-43 GI; 43-70 Vindonissa* (RT); 70-89 GI; 89-92 PAN	"Devourer 21st". XX by Roxolani Sarmatian tribe PAN
XXII Deiotariana	Alexandria, Egypt		48 BC	132 XX	to c8 BC GAL; 8 BC-123 AD+ Alexandria* (AEG)	GAL king "Deiotarus's 22nd". XX in 2nd Jewish War
XXII Primigenia	Mainz, Germany	Hercules	39 Caligula	post 300	39-c300 Moguntiacum* (GS)	Raised for Caligula's German war
XXX Ulpia Victrix	Xanten, Germany	Jupiter	105 Trajan	post 400	105-22 DC; 122-c400 Castra Vetera* (GI)	"Trajan's victorious 30th" (M Ulpius Traianus)

Legend

• Legion number and title

The numbering of the legions is confusing, since several legions shared the same number with others. Augustus numbered the legions he founded himself from I, but also inherited numbers from his predecessors. Each emperor normally numbered the legions he raised himself starting from I. However, even this practice was not consistently followed. For example, Vespasian kept the same numbers as before for legions he raised from disbanded units. Trajan's first legion was numbered XXX because there were 29 other legions in existence at the time it was raised; but the second Trajanic legion was given the sequential number II. XVII, XVIII and XIX, the numbers of the legions annihilated in the Teutoburg Forest, were never used again. (These three legions are without titles, suggesting that in disgrace their titles may have been deliberately forgotten or left unmentioned.) As a result of this somewhat chaotic evolution, the legion's title became necessary to distinguish between legions with the same number.

Legions often carried several titles, awarded after successive campaigns, normally by the ruling Emperor e.g. XII Fulminata was also awarded: *paterna* (fatherly), *victrix* (victorious), *antiqua* (venerable), *certa constans* (reliable, steadfast) and *Galliena* (Gallienus'). *Pia fidelis* (loyal and faithful), *fidelis constans* and others were titles awarded to

several legions, sometimes several times to the same legion. Only the most established, commonly used titles are displayed on this table.

The geographical titles indicate

(a) the country a legion was originally recruited e.g. *Italica* = from Italy or

(b) peoples the legion has vanquished e.g. *Parthica* = victorious over the Parthians

Legions bearing the personal name of an emperor, or of his *gens* (clan) (e.g. *Augusta*, *Flavia*) were either founded by that Emperor or awarded the name as a mark of special favour.

The title GEMINA means that two diminished legions have been combined to make one new one.

- **Main legionary base**

This shows the *castra* (base) where the legion spent the longest period during the Principate. Legions often shared the same base with other legions. Detachments of legions were often seconded for lengthy periods to other bases and provinces, as operational needs demanded.

- **Emblem**

Legions often sported more than one emblem at the same time, and occasionally changed them. Legions raised by Caesar mostly carried a bull emblem originally; those of Augustus mostly a Capricorn

- **Date disbanded**

For legions that are documented into the 4th century and beyond, we do not know when or how they were terminated. For legions disappearing from the record before 284, the reason (certain or likely) is given as:

XX = annihilated in battle

DD = disbanded in disgrace

UF = unknown fate

- **Castra legionaria**

Indicates the bases (*castra*) and/or provinces where the legion was based during its history, with dates.

- **Notes**

Contains points of note, including explanation of titles and details of a legion's fate.

Province names and borders are assumed throughout the Principate period as at 107 AD, during the rule of Trajan, and after the annexation of Dacia and Arabia Petraea. The map above shows provinces at the end of Trajan's reign, 117 AD. They are the same as in 107, except that Armenia and Mesopotamia have been annexed (they were abandoned soon after Trajan's death); and Pannonia has been split into two (the split occurred c107). In reality provincial borders were modified several times during the period 30 BC-284 AD: this explains any discrepancy with other sources, as to a legion's location at a particular date

Late Empire legions

Diocletian reorganized the Roman army, in order to better handle the menace of the barbarians from north Europe as well as that of the Persians from the East. The army was formed by *border* and *field* units.

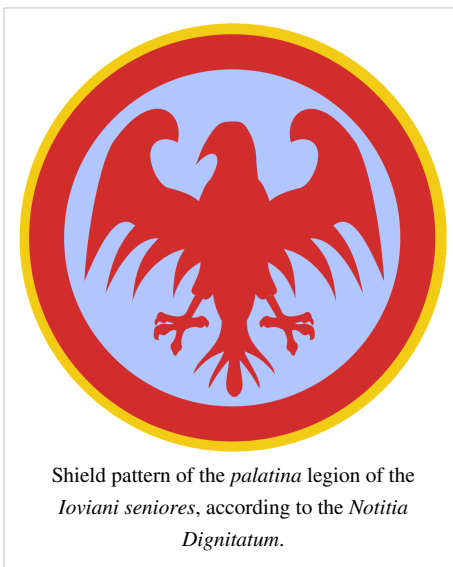
The *border* (*limitanei*) units were to occupy the limes, the structured border fortifications, and were formed by professional soldiers with an inferior training.

The *field* units were to stay well behind the border, and to move quickly where they were needed, with both offensive and defensive roles. Field units were formed by elite soldiers with high-level training and weapons. They were further divided into:

1. *Scholae*: the personal guard of the Emperor, created by Constantine I to replace the Praetorian Guard;
2. *Palatinae*: "palace troops" were the highest ranked units, created by Constantine I after he disbanded the Praetorian Guard, it was comprised originally of former guardsmen;
3. *Comitatenses*: regular field units, some were newly formed, others were descended from Early-Empire legions;
4. *Pseudocomitatenses*: these were *limitanei* units diverted into the field army and often kept there; some Early Empire legions became *pseudocomitatenses* units.

These units usually numbered between 300 and 2000 soldiers and some of them kept their original numbering schemes. The primary source for the legions of this era is the *Notitia Dignitatum*, a late 4th century document containing all the civil and military offices of both halves of the Roman Empire (revised in ca. 420 for the Western Empire).

- Legio I
 - I *Flavia Constantia* (reliable *Flavian*): *comitatensis* unit under the command of the *Magister militum per Orientis*
 - I *Flavia Gallicana Constantia* (reliable *Flavian legion from Gallia*): *pseudocomitatensis* under the command of the *Magister Peditum per Gallias*
 - I *Flavia Martis* (*Flavian legion devoted to Mars*): *pseudocomitatensis*
 - I *Flavia Pacis* (*Flavian legion of peace*): *comitatensis* under the command of the *Magister Peditum*
 - I *Flavia Theodosiana*: *comitatensis*
 - I *Illyricorum* (*of the Illyrians*): stationed at Palmyra
 - I *Iovia* (*devoted to Jupiter*): levied by Diocletian, stationed in Scythia Minor
 - I *Isaura Sagittaria* (*archers from Isauria*): *pseudocomitatensis* under the command of the *Magister militum per Orientis*
 - I *Iulia Alpina*: *pseudocomitatensis* under the command of the *Magister Peditum* in Italy
 - I *Martia* possibly based near modern Kaiseraugst
 - I *Maximiana Thaebanorum* (*the Thebans of Maximianus*): *comitatensis* unit stationed near Thebes, Egypt, and probably fighting in the battle of Adrianople
 - I *Noricorum* (*of the Noricans*): stationed in Noricum
 - I *Pontica*
- Legio II
 - II *Britannica*: *comitatensis* under *Magister Peditum*
 - II *Flavia Constantia*: *comitatensis* under the command of the *Magister Peditum*
 - II *Flavia Virtutis*: *comitatensis* under the command of the *Magister Peditum*



Shield pattern of the *palatina* legion of the *Ioviani seniores*, according to the *Notitia Dignitatum*.

- II *Herculia* (*devoted to Hercules*): levied by Diocletian, stationed in Scythia Minor
- II *Isaura*
- II *Iulia Alpina: pseudocomitatensis* under the command of the *Magister Peditum*, in *Comes Illyricum* command
- II *Felix Valentis Thebaeorum: comitatensis*
- Legio III
 - III *Diocletiana*
 - III *Flavia Salutis: comitatensis* under the command of the *Magister Peditum*
 - III *Herculea: comitatensis* under the command of the *Comes Illyricum*
 - III *Isaura*
 - III *Iulia Alpina: comitatensis* under the command of the *Magister Peditum* command in Italy
- Legio IV
 - IV *Italica*
 - IV *Martia*
 - IV *Parthica*
- Legio V
 - V *Iovia* (maybe the *Jovians*)
 - V *Parthica*
- Legio VI
 - VI *Gemella*
 - VI *Gallicana*
 - VI *Herculia* (maybe the *Herculians*)
 - VI *Hispana*
 - VI *Parthica*
- Legio XII
 - XII *Victrix*

References

Primary sources

- *Notitia Dignitatum* reports the military units and their locations at the beginning of the 5th century.

Secondary sources

- *Oxford Classical Dictionary*
- Keppie, Lawrence. *The Making of the Roman Army*, 1984 pp. 205–215
- Stephen Dando-Collins "Legions Of Rome"

Notes

- [1] Boyne, William (1968). *A manual of Roman coins*. p. 13.

External links

- Livius.org: List of Roman legions (<http://www.livius.org/le-lh/legio/legions.htm>)
- A catalogue of Roman legions (<http://www.davros.org/romans/legions.html>)
- Legio V Living History Group in Tennessee (<http://web.utk.edu/~cohprima/>)

- Roman legions from Dacia (KML file) ([http://bbs.keyhole.com/ubb/ubbthreads.php?ubb=download&Number=977551&filename=Roman castra from Romania.kmz](http://bbs.keyhole.com/ubb/ubbthreads.php?ubb=download&Number=977551&filename=Roman%20castra%20from%20Romania.kmz))

List of Roman auxiliary regiments

This article lists **Roman auxiliary regiments** attested in the epigraphic record, by province of deployment in the early 2nd century AD, the period with the most abundant evidence. For the history, organisation and equipment of these regiments, see Roman auxiliaries.

In addition, an index of regimental names is provided that explains the origin of the names, most of which are based on the names of the subject tribes or cities of the empire where they were originally recruited. (As time went by, they became staffed by recruits from anywhere, especially from the province where they were deployed.)

Sources

The sources used for this article are the most comprehensive and up-to-date general surveys on this subject, namely:

- Holder, Paul: *Auxiliary Deployment in the Reign of Hadrian* (2003)
- Spaul, John: *COHORTS 2* (2000)
- Spaul, John: *ALA* (1994)

Introduction

Types of regiment

Auxiliary regiments, called *auxilia* by the Romans, were formations kept separate from the legions, who were recruited from Roman citizens only. Auxilia were mostly recruited from the *peregrini*, i.e. subjects of the Roman empire who did not hold Roman citizenship: the vast majority of the empire's inhabitants in the 1st and 2nd centuries AD (in 212 AD, all the inhabitants of the empire were granted Roman citizenship).

There were three basic types of auxiliary regiment: *alae* (lit: "wings"), which contained cavalry only (official strength: 480 men); *cohortes* ("cohorts"), which contained infantry only (480); and *cohortes equitatae*, which were infantry cohorts with a cavalry contingent attached (600 men, of which 480 infantry and 120 cavalry). A number of regiments, of all three types, were designated *sagittariorum*, indicating that their members were equipped as archers. After ca. AD 80, a minority of regiments (ca. 12%) were enlarged and designated *milliariae*, nominally 1000-strong, but in reality containing 720, 800 and 1,040 effectives respectively.

Contents of tables

Table I below lists auxiliary regiments during the rule of the emperor Hadrian (AD 117-38), for which there is the most comprehensive evidence. The table does not show regiments that were attested to in the 1st century but that, according to Holder, dissolved by 117, nor those that were probably founded after 138. The precise number of regiments that existed at this time is disputed (e.g., 327 *per* Spaul; 367 *per* Holder). This discrepancy is due to the existence of several units with the same serial number and name, but attested in various provinces: were they different units, or the same unit moved around? In the table, Holder's estimate has been followed. In addition, 14 units attested until ca. 100, which Holder considers likely but not certain to have survived into Hadrian's reign are also included to present all possible units (making a total of 381 units). The regiments are listed by the Roman province where they were deployed in ca. 130.

Table II is a glossary of regimental names, the majority of which were ethnic, i.e., derived from the name of the native tribe or city-state of the empire where the regiment was originally raised. The table gives the tribe's name,

territory and language-group.

Ethnic composition of regiments

The rule of the founder-emperor Augustus (30 BC - AD 14) saw the foundation of the majority of the regiments attested in Hadrian's time. In the earlier part of this period, regiments were raised from, and named after, individual tribes e.g. *Campagonum*, *Trevirorum* and *Bessorum*. Later, units were raised from and named after broad national groups e.g. *Hispanorum*, *Gallorum*, *Thracum*.

There is very little evidence concerning the organisation and policies of auxiliary recruitment. The ethnic origins of auxiliary recruits are attested in only a tiny fraction of cases. For example, the *Cohors II Gallorum veterana equitata* must have recruited ca. 8,000 effectives over its probable lifespan of ca. 250 years (assuming an average performed service of 15 years). But the origins of only 2 rankers are known. Conclusions about auxiliary recruitment drawn by scholars from the available evidence must therefore be regarded as tentative.

According to Holder, during the Julio-Claudian era (14-68), a regiment's ethnic identity was preserved to some extent, with evidence of continued recruitment from the original people. By the time of Hadrian, however, a regiment's name, in most cases, probably represented the ethnic origin of few, if any, of its members. This is because in the Flavian era (69-96), as a matter of deliberate policy, most regiments were deployed in provinces far from their original home and drew the majority of their recruits from local natives and the rest from all parts of the empire. In most cases, therefore, a regiment's name had become an identification tag devoid of ethnic significance. A regiment deployed long-term in the same province would thus, over time, acquire the ethnic character of its host population.

There are exceptions to this rule:

- A minority of regiments remained stationed in their original home province, e.g., *cohors I Delmatarum mill eq*, still attested in Dalmatia in 130.
 - Regiments founded a relatively short period before 130, e.g., the *cohors I Aelia Dacorum* stationed in Britain in 130 would probably still have contained mostly Dacian recruits at this time, as it had been established by Hadrian only about a decade earlier.
 - Some specialised regiments (e.g., Syrian archers) and the elite Batavi show some evidence of continued preferential recruitment from their original province.
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TABLE I: Regiments attested in the early 2nd century

To access the table of auxiliary regiments for the province of your interest, click on the relevant note.

- Britannia (*England/Wales*) Britannia
- Germania Inferior (*S Netherlands/NW Rhineland*) Germania Inf
- Germania Superior (*S Rheinland/Alsace-Lorraine*) Germania Sup
- Raetia/Noricum (*Germany S of Danube/Switzerland/Austria*) Raetia
- Pannonia Sup & Inf (*W Hungary/Slovenia*) Pannonia
- Moesia Superior (*Serbia*) f[.]
- Moesia Inferior (*N Bulgaria, coastal Romania*) Moesia Inf
- Dacia (*Romania*) Dacia
- Cappadocia (*Central/East Turkey*) Cappadocia
- Syria inc Judaea, Arabia (*Syria, Lebanon, Palestine/Israel, Jordan*) Syria
- Aegyptus (*Egypt*) Egypt
- Mauretania inc Africa Pro (*Tunisia, Algeria, Morocco*) Mauretania
- Other provinces m[.]

KEY:

c.R. = *civium Romanorum* ("of Roman citizens"): an honorific title
eq = *equitata* (i.e. contains a cavalry contingent)
sagitt = *sagittariorum* (archer unit)
unit in **bold** type = *milliaria* (double-strength) regiment

Britannia



The Roman empire in 125 AD, in the time of emperor Hadrian, showing the provinces and legions deployed

Table I(a): BRITANNIA

ALAE	XXX	COHORTES	COHORTES	COHORTES
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Agrippina Miniata		I Aquitanorum	II Gallorum veterana eq	III Nerviorum
I Hispanorum Asturum		II Asturum eq	IV Gallorum eq	IV Nerviorum
II Asturum		IV Breucorum	V Gallorum	II Pannoniorum
Augusta Gallorum Petriana c.R.		I Augusta Bracarum	VI Gallorum	V Raetorum
Augusta Gallorum Proculeiana		III Bracaraugustanorum	I Hispanorum eq	I Sunucorum
Picentiana Gallorum		I Baetasiorum c.R.	I Aelia Hispanorum eq	I Thracum
II Gallorum Sebosiana		I Batavorum eq	I Lingonum eq	II Thracum veterana
Gallorum et Thracum classiana		I Celtiberorum	II Lingonum eq	VII Thracum
I Pannoniorum Sabiniana		I Aelia classica	III Lingonum eq	I Tungrorum
I Pannoniorum Tampiana		I Ulpia Cugernorum c.R.	IV Lingonum eq	II Tungrorum c.L. eq
I Thracum		I Aelia Dacorum	I Menapiorum	I Vangionum eq
I Tungrorum		I Delmatarum	I Morinorum	I Vardulorum c.R. eq
Hispanorum Vettonum		II Delmatarum	I nauticarum	II Vasconum c.R.
Augusta Vocontiorum		IV Delmatarum	I Augusta Nerviana Germanorum eq	I Hamiorum sagitt
		I Frisiavonum	I Nerviorum	
			II Nerviorum	

Germania Inf

Table I(b): GERMANIA INFERIOR

ALAE	XXX	COHORTES	COHORTES
Afrorum veterana		II Asturum	VI ingenuorum c.R.
Longiniana Gallorum		III Breucorum	I Latobicorum et Varcianorum
Gallorum et Thracum classiana		VI Breucorum	I Lucensium
Moesica felix		VI Brittonum	I Pannoniorum et Delmatarum eq
I Noricorum c.R.		I civium Romanorum eq	I Raetorum eq c.R.
Sulpicia c.R.		II civium Romanorum eq	VI Raetorum
I Thracum		I classica	IV Thracum eq
		II Hispanorum	II Varcianorum eq
		I Flavia Hispanorum eq	XV voluntariorum c.R.

Germania Sup

Table I(c): GERMANIA SUPERIOR

ALAE	XXX	COHORTES	COHORTES
Gallorum		I Aquitanorum veterana	I Helvetiorum
Indiana		III Aquitanorum eq c.R.	II Hispanorum eq
I Scubulorum		IV Aquitanorum eq c.R.	Ituraeorum c.R.
		I Asturum equitata eq	I Ligurum et Hispanorum c.R.
		I Biturigum	II Raetorum c.R.
		Augusta Cyrenaica eq	VII Raetorum eq
		II Augusta Cyrenaica	IV Vindelicorum
		I Flavia Damascenorum	XXIV voluntariorum c.R.
		III Delmatarum eq	XXVI voluntariorum c.R.
		V Delmatarum	XXX voluntariorum c.R.
		I Germanorum c.R.	XXXII voluntariorum c.R.

Raetia

Table I(d): RAETIA/NORICUM

ALAE	XXX	COHORTES	COHORTES
I Hispanorum Auriana I Commagenorum II Flavia I Flavia gemina c.R. I Flavia singularium		II Aquitanorum eq c.R. I Asturum II Batavorum IX Batavorum eq V Bracaraugustanorum I Breucorum c.R. V Breucorum c.R. eq III Britannorum I Aelia Brittonum I Raetorum II Raetorum	II Thracum III Thracum c.R. III Thracum veterana IV Tungrorum veterana I Flavia Canathenorum sagitt

Pannonia**Table I(e): PANNONIA (Superior and Inferior)**

ALAE	XXX	COHORTES	COHORTES
I Hispanorum Aravacorum I Flavia Britannica c.R. I Brittonum c.R. I Cananefatium I civium Romanorum I Augusta Ituraeorum I Praetoria singularium c.R. I Thracum victrix II Augusta Thracum I Ulpia contariorum I Thracum veterana sagitt III Augusta Thracum sagitt		I Alpinorum eq I Alpinorum peditata II Alpinorum eq II Asturum et Callaecorum eq III Batavorum eq VII Breucorum c.R. eq I Brittonum V Callaecorum Lucensium eq I Campanorum voluntariorum c.R. II Augusta Dacorum eq I Lusitanorum Cyrenaica III Lusitanorum I Montanorum eq	I Noricorum eq I Ulpia Pannoniorum eq I Thracum c.R. I Thracum Germanica I Thracum Syriaca equitata eq II Augusta Thracum eq I Aelia Caesariensis sagitt I Aelia Gaesatorum sagitt

Moesia Sup**Table I(f): MOESIA SUPERIOR**

ALAE	XXX	COHORTES	COHORTES
I Claudia nova miscellanea Gallorum Flaviana		III Brittonum veterana eq III campestris c.R. V Gallorum eq V Gallorum et Pannoniorum V Hispanorum eq I Pannoniorum veterana eq	I Antiochensium sagitt I Cretum eq sagitt

Moesia Inf

Table I(g): MOESIA INFERIOR

ALAE	XXX	COHORTES	COHORTES
II Hispanorum Aravacorum I Vespasiana Dardanorum I Flavia Gaetulorum Gallorum Aetorigiana I Claudia Gallorum Capitoniana I Gallorum et Pannoniorum <i>cataphractaria</i>		I Bracarorum c.R. II Bracaraugustanorum eq II <i>Flavia</i> Brittonum eq I Lepidiana c.R. II Lucensium I Lusitanorum II Mattiacorum eq	I Flavia Numidarum eq I Sugambrorum tironum I Claudia Sugambrorum veterana eq I Thracum Syriaca II Chalcidenorum sagitt I Cilicum eq sagitt

Dacia**Table I(h): DACIA (inc. Dacia Superior, Inferior and Porolissensis)**

ALAE	XXX	COHORTES	COHORTES	COHORTES
I Asturum I Batavorum I Bosporanorum I Hispanorum Campagonum I Gallorum et Bosporanorum II Gallorum et Pannoniorum I Hispanorum II Pannoniorum II Pannoniorum veterana I Tungrorum Frontoniana I Flavia Commagenorum sagitt numerus equitum Illyricorum		I Afrorum c.R. eq I Batavorum c.R. II Flavia Bessorum I Bracaraugustanorum I Britannica c.R. eq II Britannorum c.R. I Flavia Brittonum eq I Ulpia Brittonum I Augusta Brittonum Nerviana II Augusta Brittonum Nerviana I Cananefatium I Flavia Commagenorum IV Baetica	I Cypria c.R. II Gallorum II Gallorum Dacica II Gallorum Macedonica eq II Gallorum Pannonica III Gallorum I Hispanorum I Hispanorum veterana eq I Flavia Ulpia Hispanorum c.R. eq II Hispanorum scutata c.R. IV Hispanorum eq V Lingonum	II Flavia Numidarum VIII Raetorum eq c.R. VI Thracum eq Ubiorum eq I Ubiorum I Vindellicorum c.R. eq I Augusta Ituraerorum sagitt I Thracum sagitt I Tyriorum sagitt

Cappadocia**Table I(i): CAPPADOCIA**

ALAE	XXX	COHORTES	COHORTES
II Ulpia Auriana I Augusta gemina colonorum I Ulpia Dacorum II Gallorum I Parthorum veterana		Apula c.R. I Bosporanorum I Claudia eq II Claudia I Hamiorum c.R. I Italica voluntariorum c.R. milliaria c.R. eq I Numidarum	II Ulpia Petreorum eq III Ulpia Petreorum eq I Raetorum eq IV Raetorum eq III Augusta Cyrenaica sagitt

Syria

Table I(j): SYRIA (inc. Judaea, Arabia Petraea)

ALAE	XXX	COHORTES	COHORTES	COHORTES
I Flavia Agrippiana II Flavia Agrippiana Gaetulorum veterana I Phrygum VII Phrygum I Ulpia singularium I Thracum Herculanea Augusta Xoitana I Ulpia dromedariorum Gallorum et Thracum Antiana sagitt		III Bracarum IV Bracarugustanorum III Callaecorum Bracarum IV Callaecorum Lucensium II Cantabrorum II classica I Ulpia Dacorum III Dacorum I Damascena Armeniaca II equitum eq II Ulpia equitatum eq I Flavia I Gaetulorum I Ulpia Galatarum	II Ulpia Galatarum VII Gallorum eq V gemella c.R. VI Hispanorum II Ligurum et Corsorum I Lucensium I Augusta Lusitanorum I Montanorum I Augusta Pannoniorum II Ulpia Paphlagonum III Ulpia Paphlagonum eq IV Ulpia Petreorum V Ulpia Petreorum eq VI Ulpia Petreorum	I Sebastena I Thracum III Augusta Thracum II Thracum Syriaca III Thracum Syriaca IV Thracum Syriaca I Ascalonitanorum sagitt I Flavia Chalcidenorum eq sagitt I Damascenorum sagitt II Italica voluntariorum c.R. sagitt I Ulpia Petreorum eq sagitt I Ulpia c.R. sagitt I Augusta Thracum eq sagitt XX Palmyrenorum equitata

Aegyptus**Table I(k): AEGYPTUS**

ALAE	XXX	COHORTES	COHORTES
Apriana Augusta Syriaca Commagenorum Gallorum veterana I Thracum Macedonica Vocontiorum		I Ulpia Afrorum eq I Flavia Cilicum eq II Ituraeorum III Ituraeorum I Aug. praetoria Lusitanorum eq I Macedonica eq	I Pannoniorum I Thebaeorum eq II Thebaeorum scutata c.R. I Apamenorum eq sagitt

Mauretania**Table I(l) MAURETANIA (inc. Africa, Numidia, Caesariensis, Tingitana)**

ALAE	XXX	COHORTES	COHORTES	
III Asturum I Augusta c.R. I Augusta Gallorum I Gallorum Tauriana victrix Gemelliana c.R. I Flavia Numidica I Augusta Nerviana I Pannoniorum II Augusta Thracum I Hamiorum sagitt Parthorum sagitt I Syrorum sagitt II Syrorum sagitt		I Flavia Afrorum II Flavia Afrorum I Asturum et Callaecorum III Asturum c.R. eq II Breucorum II Brittonum eq I Chalcidenorum eq VI Commagenorum eq I Corsorum c.R. V Delmatarum c.R.	Aelia expedita I Flavia eq III Gallorum felix IV Gallorum c.R. II Hamiorum I Flavia Hispanorum II Hispanorum c.R. eq I Ituraeorum c.R. I Lemavorum c.R. VII Lusitanorum eq	I Flavia Musulamiorum eq I Nurritanorum II Sardorum IV Sugamborum IV Tungrorum I Syrorum sagitt II Syrorum eq sagitt

Internal

Table I(m) INTERNAL PROVINCES & UNKNOWN LOCATIONS

ALAE	XXX	COHORTES	COHORTES
II Flavia Hispanorum (HISP)		III Alpinorum eq (DLM) I Aelia Athoitarum (THR) I Ausetanorum (HISP?) I Flavia Bessorum (MCD) Callaecorum (?) I Celtiberorum eq (HISP) I Cisipadensium c.R. (THR) Dacorum (?) I Gallica c.R. eq (HISP) I Delmatarum mill eq (DLM)	I Ligurum (AS?) maritima (BAE) Maurorum et Afrorum (?) I Musulamiorum (LYC) VI praetoria (BYT) III sagittariorum (?) I/II nova tironum (HISP) VIII voluntariorum (DLM) XXV voluntariorum (HISP?)

GLOSSARY OF NON-ETHNIC REGIMENTAL NAMES

NB: Where a regiment carries the name of a person (other than an imperial name, see below), e.g. *ala Sulpicia*, the name in most cases is that of the regiment's first, or early, *praefectus* (regimental commander). In the Augustan era, commanders of auxiliary units were often Roman legionary centurions, or native chieftains e.g. *ala Gallorum Aetectorigiana*, which was probably once commanded by a Gallic chieftain named Aetectorix. (Later, the emperor Claudius restricted auxiliary commands to Roman knights only).

(1) imperial dedications

- *Augusta*: founded by emperor Augustus (r. 30 BC - AD 14), or honoured with this title by any of his successors
- *Claudia*: founded by, or honoured by, one of: Tiberius (r.14-37), Caligula (37-41) or Claudius (41-54), all of whom were members of the Claudii clan
- *Flavia*: Vespasian (Titus Flavius Vespasianus r.69-79) or one of his two sons and successors, Titus (79-81) or Domitian (81-96)
- *Ulpia*: Trajan (Marcus Ulpius Traianus r.98-117)
- *Aelia*: Hadrian (Publius Aelius Hadrianus r.117-138)
- *Aurelia*: Marcus Aurelius (r.161-180)
- *Septimia*: Septimius Severus (r.197-211)

N.B. In the 4th century, *Valeria* referred to emperor Diocletian (Aurelius Valerius Diocletianus, r.284-305) and *Flavia* to Constantine I (Flavius Valerius Constantinus, r.312-337) or some of his successors.

(2) names of regiments originally raised by the emperor Augustus during the Illyrian revolt crisis (AD 6-9) from Roman citizens not admissible to legions (i.e. vagrants, convicts, debtors and freed slaves):

- *civium Romanorum*: regiment originally composed of Roman citizens (inc freed slaves)
- *ingenuorum*: regiment originally free-born (*ingenui*) Roman citizens
- *voluntariorum*: regiment originally volunteers (*voluntarii*), in reality slaves freed in return for military service during the Illyrian revolt crisis^[1]

PS: After their initial recruitment of Roman citizens, these regiments recruited non-citizens (*peregrini*) like all other regiments.

(3) other non-ethnic regimental names:

- *classica*: the regiment was originally recruited, probably in the Illyrian emergency, from naval personnel (from *classis* = "fleet"), who were mostly non-citizens. Also *nauticarum* (from *nautae* = "sailors") and *maritima*.
- *praetoria*: originally a cohort of the Praetorian Guard in Rome. Apparently a detachment of the cohort was left behind at the end of an imperial campaign, presumably to form the core of a new auxiliary cohort, retaining the prestigious name.
- *singularium*: *ala* formed around members of the elite *equites singulares Augusti* (imperial horseguards), left behind to reinforce frontier at the end of an imperial campaign.

- *contariorum*: specialised regiment of lancers (*contarii*) from *contus* (a long lance)
- *dromedariorum*: specialised regiment of camel-mounted troops for desert warfare

(4) regimental epithets:

- *civium Romanorum* (c.R. for short): title awarded by the emperor to a regiment for signal valour. All current (but not future) members would be granted Roman citizenship, and the regiment would retain the title in perpetuity.
- *veterana*: uncertain meaning: may have been used to distinguish older unit from a newer unit with the same serial number and name
- *tironum*: from *tirones* ("trainees")

TABLE II: Index of ethnic regimental names

Linguistic group code

- C = Celtic language group
- X = non Indo-European language
- X/C = non Indo-European base with strong Celtic influence
- X/S = Semitic language group

TABLE II: ROMAN AUXILIARY REGIMENTS: Index of ethnic regimental names

Regimental name	Original tribe/city	Roman province	Original territory (approx.)	Native language	Further information
Afrorum	Afri	Africa	Tunisia	Berber (X)	
Alpinorum	Salassi	Alpes Tres	Val d'Aosta, NW It	Ligurian (X/C)	Alpine regiments of the Roman army
Antiochensium	Antiochenses	Syria	Antakya Turkey	Aramaic (X/S)	
Aquitanorum	Aquitani	Aquitania	Aquitaine, SW Fr	Aquitanian (X)	
Apamenorum	Apameni	Syria	Apamea, Syria	Aramaic (X/S)	
Aravacorum	Aravaci	Hispania	Burgos pr Spain	Celtiberian (C)	
Ascalonitanorum	Ascalonitani	Judaea	Ascalon, Israel	Aramaic (X/S)	
Asturum	Astures	Hispania	Asturias N Sp	Celtiberian (C)	
Athoitarum	Autariatae	Dalmatia	Bosnia	Illyrian	
Ausetanorum	Ausetani	Hispania	N Barcelona pr Sp	Iberian (X)	
Baetasiurum	Baetasii	Germania Inf	S Netherlands	W Germanic	
Bataworum	Batavi	Germania Inf	Betuwe E Neth	W Germanic	
Bessorum	Bessi	Thracia	Mid Bulgaria	Thracian	
Biturigum	Bituriges	Lugdunensis	Berry, C France	Gaulish (C)	
Bosporanorum	Bosporani	Moesia Inf	NE Bulgaria	Sarmatian	
Bracarorum (Bracarum) (Bracaraugust.)	Bracari	Gallaecia	Minho, Portugal	Gallaecian (C)	
Breucorum	Breuci	Dalmatia	N Bosnia	Illyrian	
Brittonum (Britannorum)	Brittones (Britanni)	Britannia	N Britain	Brythonic (C)	
Gallaecorum	Gallaeci	Gallaecia	Galicia NW Spain	Gallaecian (C)	
Campagonum	Campagones	Hispania	N Spain	Celtiberian	

Campanorum	(Roman cit)	Italia	Campania It.	Latin	
Canathenorum	Canatheni	Syria	Canatha, Syria	Aramaic X/S	
Cannanefatium	Cananefates	Germania Inf	S Holland, Neth	W Germanic	
Cantabrorum	Cantabri	Hispania	Cantabria N Sp.	Celtiberian (C)	
Celtiberorum	Celtiberi	Hispania	Guadalajara Spain	Celtiberian (C)	
Chalcidenorum	Chalcideni	Bithynia	Chalcedon, Turk	Greek	
Cilicum	Cilices	Cilicia	Icel/Adana pr Turk	Lydian	
Cisipadensium	(Roman cit)	Italia (Aemilia)	Emilia-Romagna, It	Latin	
Commagenorum	Commagene	Cappadocia	Gaziantep pr Turk	Greek	
Corsorum	Corsi	Sardinia	N Sardinia, It	Sardinian	
Cretum	Cretes	Creta	Crete, Greece	Greek	
Cugernorum	Cugerni	Germania Inf	NW Rhineland Ger	W Germanic	
Dardanorum	Dardani	Macedonia	S Serbia/Kosovo	Illyrian	
Dacorum	Daci	Dacia	Romania	Dacian	
Damascenorum	Damasceni	Syria	Damascus, Syria	Aramaic (X/S)	
Delmatarum	Dalmatae	Dalmatia	Dalmacija, Croatia	Illyrian	
Frisionum	Frisiones	Germania Inf	N Brabant S Neth	W Germanic	
Gaesatorum	Gaesati	Belgica	Alsace, Fr	Gaulish	
Gaetulorum	Gaetuli	Mauretania	Algeria	Berber (X)	
Galatarum	Galatae	Galatia	Ankara pr C Turk	Galatian (C)	
Gallorum	Gauls	Lugdunensis	NE France	Gaulish (C)	
Hamiorum	Hamii	Syria	Hama, Syria	Aramaic (X/S)	
Helvetiorum	Helvetii	Belgica	SW Switzerland	Gaulish (C)	
Hispanorum	Hispani	Hispani	N Spain	Celtiberian (C)	
Illyricorum	Illyrici	Dalmatia	Bosnia	Illyrian	
Ituraeorum	Ituraei	Syria	S Lebanon	Aramaic (X/S)	
Latobiorum	Latobici	Pannonia	C Bosnia	Illyrian	
Lemavorum	Lemavi	Gallaecia	Monforte de Lemos (Spain)	Gallaecian (C)	
Ligurum	Ligures	Italia (Liguria)	Liguria, It	Ligurian (X/C)	Alpine regiments of the Roman army
Lingonum	Lingones	Belgica	Langres, NE Fr	Gaulish (C)	
Lucensium	Lucenses	Gallaecia	cLugo Galicia	Gallaecian (C)	
Lusitanorum	Lusitani	Lusitania	Portugal	Celtiberian (C)	
Mattiacorum	Mattiaci	Germania Sup	Rhineland Pfalz	W Germanic	
Maurorum	Mauri	Mauretania	Algeria	Berber (X)	
Menapiorum	Menapii	Belgica	W Flanders, Bel	Gaulish (C)	
Morinorum	Morini	Belgica	Pas-de-Calais Fr	Gaulish (C)	
Montanorum	Montani	Pannonia	Julian Alps, Slov	Raetian (X/C)	Alpine regiments of the Roman army
Musulamiorum	Musulamii	Mauretania	E Algeria	Berber (X)	
Nerviorum	Nervii	Belgica	Flandres, Fr	Gaulish (C)	

Noricorum	Taurisci	Noricum	Mid Austria	(C)	Alpine regiments of the Roman army
Numidarum	Numidae	Numidia	NE Algeria	Berber (X)	
Nurritanorum	Nurritani	Sardinia	cNuoro, N Sardinia	Sardinian	
Palmyrenorum	Palmyra	Syria	Central Syria	Palmyrene	Possibly mounted archers
Pannoniorum	Pannonii	Pannonia	W Hungary	Illyrian	
Parthorum	Parthi	Cappadocia	E Turkey	Parthian	
Petreorum	Nabataei	Arabia Pet.	cPetra Jordan	Arabic (X/S)	
Phrygum	Phryges	Galatia	Eskisehir W Turk	Phrygian	
Raetorum	Raeti	Raetia	S Ger/Switz	Raetian (X/C)	Alpine regiments of the Roman army
Sardorum	Sardi	Sardinia	S Sardinia	Sardinian	
Scubulorum	Scubuli	Macedonia	cSkopje Mac	Illyrian	
Sequanorum	Sequani	Belgica	Frache-Comté Fr	Gaulish (C)	
Sugambrorum	Sicambri	Germania Inf	NW Rhineland	W Germanic	
Sunucorum	Sunici	Germania Inf	E Neth	W Germanic	
Syrorum	Syri	Syria	Syria	Aramaic (X/S)	
Thebaeorum	Thebaei	Aegyptus	Thebes, Egypt	Egyptian (X)	
Thracum	Thracae	Thracia	Bulgaria	Thracian	
Trevirorum	Treveri	Belgica	cTrier Ger	Gaulish (C)	
Tungrorum	Tungri	Belgica	cTongeren (<i>Tongres</i>) Bel	Gaulish (C)	
Tyriorum	Tyrii	Syria	Tyre, S Lebanon	Phoenician	
Ubiurum	Ubii	Germania Inf	NW Rhineland	W Germanic	
Vangionum	Vangiones	Germania Sup	Mainz/Worms Ger	W Germanic	
Varcianorum	Varciani	Pannonia	E Croatia	Illyrian	
Vardulorum	Varduli	Hispania	Guipuzcoa, Spain	Old Basque (X)	
Vasconum	Vascones	Hispania	Navarra, Spain	Old Basque	
Vettonum	Vettones	Lusitania	Salamanca pr Sp	Celtiberian (C)	
Vindelicorum	Vindelici	Raetia	Black Forest, Ger	Celtic/German	Alpine regiments of the Roman army
Vocontiorum	Vocontii	Lugdunensis	Dauphiné, Fr	Gaulish (C)	

External links

- Roman auxiliary regiments from Dacia (KML file) ^[2]

Citations

[1] Goldsworthy *Complete Roman Army* 64

[2] <http://bbs.keyhole.com/ubb/ubbthreads.php?ubb=download&Number=977551&filename=Roman%20castra%20from%20Romania.kmz>

East Roman army

The **East Roman army** refers to the army of the Eastern section of the Roman Empire, from the empire's definitive split in 395 AD to the army's reorganization by themes after the permanent loss of Syria, Palestine and Egypt to the Arabs in the 7th century (during the Byzantine-Arab Wars). The *East Roman army* is thus the intermediate phase between the Late Roman army of the 4th century and the Byzantine army of the 7th century onwards.

The Roman Army of the 4th century, both Eastern and Western, is described in detail in the article Late Roman army. In its essential features, the East Roman army's organisation remained similar to the 4th century configuration. This article focuses on changes to that configuration during the 5th and 6th centuries.

Sources

Much of our evidence for the East Roman army's deployments at the end of the 4th century is contained in a single document, the *Notitia Dignitatum*, compiled c395-420, a manual of all late Roman public offices, military and civil. The main deficiency with the *Notitia* is that it lacks any personnel figures so as to render estimates of army size impossible. However, the *Notitia* remains the central source on the late Army's structure due to the dearth of other evidence.

The bulk of the evidence for the East Roman army is from the period of emperor Justinian I (reigned 527-65), who undertook a major programme to reconquer the lost territories of the fallen Western Roman Empire, which had collapsed in 476AD and been replaced by barbarian successor kingdoms. Justinian succeeded in recapturing Italy, Africa and southern Spain. These wars, and the career of Justinian's generalissimo, Belisarius, are described in detail by the 6th century historian Procopius.

The third major source for the East Roman army are the legal codes published in the East Roman empire in the 5th and 6th centuries: the Theodosian code (438) and the *Corpus Iuris Civilis* (528-39). These compilations of Roman laws dating from the 4th century contain numerous imperial decrees relating to all aspects of the regulation and administration of the late army.

Background

In 395, the death of the last sole Roman emperor, Theodosius I (r. 379-95), led to the final split of the empire into two political entities, the West (*Occidentale*) and the East (*Orientalis*). The system of dual emperors (called *Augusti* after the founder of the empire, Augustus) had been instituted a century earlier by the great reforming emperor Diocletian (r.284-305). But it had never been envisaged as a political separation, purely as an administrative and military convenience. Decrees issued by either emperor were valid in both halves and the successor of each *Augustus* required the recognition of the other. The empire was reunited in single hands twice: under Constantine I (r. 312-37) and Theodosius himself.

But the division into two sections recognized a growing cultural divergence. The common language of the East had always been Greek, while the West was Latin-speaking. This was not *per se* a significant division, as the empire had long been a fusion of Greek and Roman cultures (classical civilisation) and the Roman ruling class was entirely bilingual. But the rise of Christianity strained that unity, as the cult was always much more widespread in the East than in the West, which was still largely pagan in 395. Constantine's massive reconstruction of the city of Byzantium into Constantinople, a second capital to rival Rome, led to the establishment of a separate eastern court and bureaucracy.

Finally, the political split became complete with the collapse of the Western empire in the early 5th century and its replacement by a number of barbarian Germanic kingdoms. The Western army was dissolved and was incorporated into the barbaric kingdoms. The Eastern empire and army, on the other hand, continued intact until the Arab invasions in the 7th century. These deprived the East Roman empire of its dominions in the Middle East and North

Africa, especially Egypt.

The Army of Theodosius I (395)

Numbers

The size of the Eastern army in 395 is controversial because the size of individual regiments is not known with any certainty. Plausible estimates of the size of the whole 4th century army (excluding fleets) range from c400,000^[1] to c600,000.^[2] This would place the Eastern army in the rough range 200,000 to 300,000, since the army of each division of the empire was roughly equal.^[3]

The higher end of the range is provided by the late 6th century military historian Agathias, who gives a global total of 645,000 effectives for the army "in the old days", presumed to mean when the empire was united.^[4] This figure probably includes fleets, giving a total of c600,000 for the army alone. Agathias is supported by A.H.M. Jones' *Later Roman Empire* (1964), which contains the fundamental study of the late Roman army. Jones calculated a similar total of 600,000 (exc. fleets) by applying his own estimates of unit strength to the units listed in the *Notitia Dignitatum*.^[2] Following Jones, Treadgold suggests 300,000 for the East in 395.^[5]

But there are strong reasons to view 200,000 as more likely:

1. Jones' assumptions about unit strengths, based on papyri evidence from Egypt, are probably too high. A rigorous reassessment of the evidence by R. Duncan-Jones concluded that Jones had overestimated unit sizes by 2-5 times.^[6]
2. The evidence is that regiments were typically one-third understrength in the 4th century.^[7] Thus Agathias' 600,000 on paper (if it is based on official figures at all) may in reality have translated into only 400,000 actual troops on the ground.
3. Agathias gives a figure of 150,000 for the army in his own time (late 6th c.) which is more likely to be accurate than his figures for the 4th century. If Agathias' 4th c. and 6th c. figures are taken together, they would imply that Justinian's empire was defended by only half the troops that supposedly defended the earlier empire, despite having to cover even more territory (the reconquered provinces of Italy, Africa and S. Spain), which seems inherently unlikely.

The discrepancy in army size estimates is mainly due to uncertainty about the size of *limitanei* regiments, as can be seen by the wide range of estimates in the table below. Jones suggests *limitanei* regiments had a similar size to Principate auxilia regiments, averaging 500 men each.^[8] More recent work, which includes new archaeological evidence, tends to the view that units were much smaller, perhaps averaging 250.^{[6][9]}

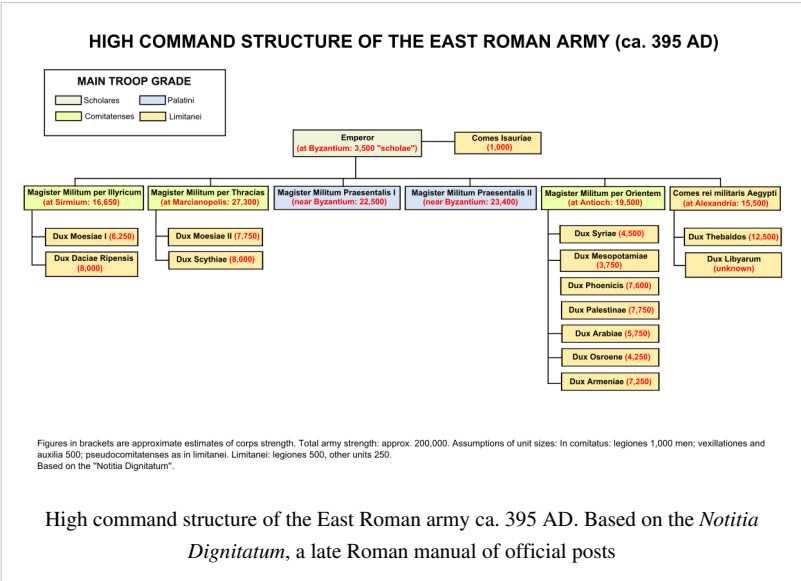
There is less dispute about *comitatus* regiments, because of more evidence. Treadgold estimates the 5 *comitatus* armies of the East as containing c20,000 men each, for a total of c100,000, which constitutes either one-third or one-half of the total army.^[5]

About one third of the army units in the *Notitia* are cavalry, but cavalry numbers were less than that proportion of the total because cavalry unit sizes were smaller.^[10] The available evidence suggests that the proportion of cavalry was about one-fifth of the total effectives: in 478, a *comitatus* of 38,000 men contained 8,000 cavalry (21%).^[11]

Command structure

The later 4th century army contained three types of army group: (1) Imperial escort armies (*comitatus praesentales*). These were ordinarily based near Constantinople, but often accompanied the emperors on campaign. (2) Regional armies (*comitatus*). These were based in strategic regions, on or near the frontiers. (3) Border armies (*exercitus limitanei*). These were based on the frontiers themselves.

The command structure of the Eastern army, as recorded in the *Notitia Dignitatum*, is represented diagrammatically in the organisation chart (above).



By the end of the 4th century, there were 2 *comitatus praesentales* in the East. They wintered near Constantinople at Nicaea and Nicomedia. Each was commanded by a *magister militum* ("master of soldiers", the highest military rank) Each *magister* was assisted by a deputy called a *vicarius*.^[12]

There were 3 major regional *comitatus*, also with apparently settled winter bases: Oriens (based at Antioch), Thraciae (Marcianopolis), Illyricum (Sirmium) plus two smaller forces in Aegyptus (Alexandria) and Isauria. The large *comitatus* were commanded by *magistri*, the smaller ones by *comites*. All five reported direct to the eastern *Augustus*. This structure remained essentially intact until the 6th century.^[12]

Regiments

Regiments were classified according to whether they were attached to the *comitatus* armies (*comitatenses*) or border forces (*limitanei*). Of the *comitatenses* regiments, about half were *palatini* (literally: "of the palace"), an elite grade.

The strength of army regiments is very uncertain and may have varied over the 5th/6th centuries. Size may also have varied depending on the grade of the regiment. The table below gives some recent estimates of unit strength, by unit type and grade:

ESTIMATED SIZE OF REGIMENTS IN 4th CENTURY ARMY^[13]

Cavalry unit type	Comitatenses (inc. palatini)	Limitanei	XXXXX	Infantry unit type	Comitatenses (inc. palatini)	Limitanei
Ala		120-500		Auxilia	800-1,200 or 400-600	400-600
Cuneus		200-300		Cohors		160-500
Equites		80-300		Legio	800-1,200	500
Schola	500			Milites		200-300
Vexillatio	400-600			Numerus		200-300

The overall picture is that *comitatenses* units were either c1,000 or c500 strong. *Limitanei* units would appear to average about 250 effectives. But much uncertainty remains, especially regarding the size of *limitanei* regiments, as can be seen by the wide ranges of the size estimates.

Scholae

The *Scholae Palatinae* were elite cavalry regiments that acted as imperial escorts. At the end of the 4th c., there were 7 *scholae* (3,500 men) in the East. They were outside the normal military chain of command as they did not belong to the *comitatus praesentales* and reported to the *magister officiorum*, a civilian official.^[14] However, this was probably only for administrative purposes: on campaign, the tribunes (regimental commanders) of the *scholae* probably reported direct to the emperor himself. 40 select troops from the *scholae*, called *candidati* from their white uniforms, acted as the emperor's personal bodyguards.^[15]

Comitatenses

Comitatenses cavalry regiments were known as *vexillationes*, infantry regiments as either *legiones* or *auxilia*.^[16] About half the regiments in the *comitatus*, both cavalry and infantry, were classified as *palatini*. They were concentrated in the *comitatus praesentales* (80% of regiments) and constituted a minority of the regional *comitatus* (14%).^[17] The *palatini* were an elite group with higher status and probably pay.^[18]

The majority of cavalry regiments in the *comitatus* were traditional melee formations (61%). These regiments were denoted *scutarii*, *stabilesiani* or *promoti*, probably honorific titles rather than descriptions of function. 24% of regiments were light cavalry: *equites Dalmatae*, *Mauri* and *sagittarii* (mounted archers). 15% were heavily armoured shock charge cavalry: *cataphracti* and *clibanarii*.^[10]

Limitanei

In the *limitanei*, most types of regiment are present, including the old-style *alae* and *cohortes* of the Principate auxilia.

Recruitment

In 395, the army used Latin as its operating language. This continued to be the case into the late 6th century, despite the fact that Greek was the common language of the Eastern empire.^[19] This was not simply due to tradition, but also to the fact that about half the Eastern army continued to be recruited in the Latin-speaking Danubian regions of the Eastern empire. An analysis of known origins of *comitatenses* in the period 350-476 shows that in the Eastern army, the Danubian regions provided 54% of the total sample, despite constituting just 2 of the 7 eastern dioceses (administrative divisions): Dacia and Thracia.^[20] These regions continued to be the prime recruiting grounds for the East Roman army e.g. the emperor Justin I (r. 518-27), uncle of Justinian I, was a Latin-speaking peasant who never learnt to speak more than rudimentary Greek. The Romanized Thracian (Thraco-Roman) and Illyrian inhabitants of those regions, who came to be known as Vlachs by foreigners in the Middle Ages, retained the Roman name (Romanians) and the Latin tongue.



Shield insignia of regiments under the command of the *Magister Militum Praesentalis II* of the East Roman army c395 AD. Page from the *Notitia Dignitatum*

Citations

- [1] Elton (1996) 120
- [2] Jones (1964) 683
- [3] Heather (2005) 247
- [4] Agathias *History* V.13.7-8; Jones (1964) 680
- [5] Treadgold (1995) 45
- [6] Duncan-Jones (1990) 105-17
- [7] Elton (1996)
- [8] Jones (1964) 681-2
- [9] Mattingley (2006) 239
- [10] Elton (1996) 106
- [11] Elton (1996) 105-6
- [12] Jones (1964) 609
- [13] Data from Duncan-Jones (1990) 105-17; Elton (1996) 89; Goldsworthy (2005) 206; Mattingly (2006) 239
- [14] *Notitia Dignitatum* Titles IX and XI
- [15] Jones (1964) 613
- [16] Elton (1996) 89
- [17] *Notitia Dignitatum Orientalis* Titles V - IX inc.
- [18] Elton (1996) 94
- [19] Maurice *Strategikon*
- [20] Elton (1996) 134

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Article Sources and Contributors

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